ANNUAL REPORT

1981 - 82

The Department of Agriculture

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Manitoba Agriculture

Executive and Directors, April 1, 1981 to March 31, 1982

Executive

Honourable Bill Uruski, Minister
R.C. Bailey, Deputy Minister
E.P. Hudek, Associate Deputy Minister, Land and Water Division (Ret. Dec. 1981)
M.B. Kraut, Agricultural Marketing and Development Division
G.J. Lacomy, Assistant Deputy Minister, Management Services Division
T.L. Pringle, Assistant Deputy Minister, Production Division
R.R. Filteau, Policy and Program Coordinator (Ret. Nov. 1981)

Directors

Administrative and Accounting Services — R.L. Baseraba
Agri-Water — E.W. Griffin
Agricultural Crown Lands — G.T. Somers
Animal Industry — C.H. McNaughton
Communications — V.E. McNair
Agricultural Training — R.M. Deveson
Economics — W.I.R. Johnson
Marketing — A.E. Gascoigne
Personnel Services — D.H. Burch
Soils and Crops — C.C. Cranston
Technical Services — E.T. Oatway
Veterinary Services — J.A. McPhedran
Manitoba Marketing Board — R. Kapilik, Secretary Manager
Manitoba Agricultural Lands Protection Board — J.F. Muirhead
Central — G.A. Arnott
Eastern — F.J. Slevinsky
Interlake — G.D. Webster
Northwest — A.G. Arnal
Southwest — J.L. Neabel

MANITOBA

MINISTER OF AGRICULTURE
WINNIPEG
R3C 0V8

To Her Honour,
Pearl McGonigal,
Lieutenant-Governor for the Province of Manitoba

Your Honour:

I have the honour to submit herewith the Report of the Department of Agriculture for the period April 1, 1981 to March 31, 1982.

Your obedient servant,

Bill Uruski,
Minister of Agriculture.

MANITOBA

DEPUTY MINISTER OF AGRICULTURE

WINNIPEG R3C 0V8

Honourable Bill Uruski,
Minister of Agriculture,
Province of Manitoba

Sir:

It is my pleasure to present the annual report of the Manitoba Department of Agriculture for the twelve month period ending March 31, 1982.

Respectfully submitted,

R.C. Bailey,
Deputy Minister.

Minister of Agriculture
Manitoba Water Services Board
Manitoba Agricultural Credit Corporation
Manitoba Crop Insurance Corporation
Agriculture Lands Protection Board
Agricultural Lands Protection Board
8 Commodity Boards
Deputy
Administrative Officer
Manitoba Agricultural Credit Corporation
Manitoba Crop Insurance Corporation
Policy and Program Coordination
Production Division
Marketing and Development Division
Land and Water Division
Management Services Division
Animal Industry
Veterinary Services
Soils And Crops
Technical Services
Agricultural Training Youth Extension Centre
Communications
Manitoba Marketing Council
Commodity Boards
Marketing
Grain and Transportation
Economics
Agri Water
Agricultural Crown Lands
Manitoba Water Services Board
Agricultural Lands Protection Board
Land Utilization
Finance and Budget
Program Analysis
Systems and Internal Audit
Administration and Accounting Services
Computer Services
Personnel Services
Central Region
Eastern Region
Interlake Region
Northwest Region
Southwest Region

General Administration

Grain Handling and Transportation

The general activities of this unit relate to the development of policy options and recommendations for the consideration of Senior Executive, the Deputy Minister and Minister, which would enhance the movement of Manitoba products and thereby improve the income and cash flow position of agricultural producers and processors.

Similar policy recommendations were provided on the disposition of abandoned railway rights-of-way, transport systems and handling tariffs.

Close liaison was maintained with the Manitoba Transportation Secretariate, Grain Transportation Authority, the railways, grain companies and farm organizations.

Activities

The unit was directly involved in the following specific activities:

— A major Western Canadian Conference on the utilization of the port of Churchill.
— An analysis of various reports on western rail capacity.
— Chairmanship of an inter-departmental committee that developed an agreement with Transport Canada for the transfer of abandoned railway rights-of-way to the Province. Later signed by Federal and Provincial Ministers of Transport.
— Chairmanship of a committee on the disposition of abandoned railway rights-of-way. Policy developed and agreed to by Cabinet resulting in the disposition of 483 of the possible 923 parcels of land.
— Finalized an agreement with Canadian National for the transfer to the province of CN rights-of-way not contained in the original agreement and progressed with a similar plan with Canadian Pacific.
— Chairmanship of an Advisory Committee to a consultant studying the feasibility of developing a Western Canada crop data centre.
— Prepared material and provided other assistance to the Langruth and Amaranth communities in their preparation for CTC hearings on the CN Oakland subdivision.
— Attended regional meetings of the Canada Grains Council, Palliser Wheat Growers and WESTAC meetings in Edmonton and Vancouver.

In addition, studies were made and reports developed on the Canwest Survey on farmer's attitudes to grain marketing; United States studies on hopper car utilization, United States studies on Grain Transport; IBI-Joseph Study on Grain Car Allocation; Department of Highways study on Transport Capacity for Eastbound Bulk Commodities; Alberta Meat Industry Study and Manitoba Department of Transportation studies on Highway Impact Costs resulting from rail abandonment.

The Manitoba Natural Products Marketing Council

In 1981-1982, the Manitoba Natural Products Marketing Council was responsible to the Minister of Agriculture for the administration of the Natural Products Marketing Act and the supervision of the following commodity marketing boards operating thereunder:

The Manitoba Chicken Broiler Producers' Marketing Board

The Manitoba Egg Producers' Marketing Board

The Manitoba Hog Producers' Marketing Board

The Manitoba Honey Producers' Marketing Board

The Manitoba Milk Producers' Marketing Board

The Manitoba Root Crop Producers' Marketing Board

The Manitoba Vegetable Producers' Marketing Board

The Manitoba Turkey Producers' Marketing Board

In the performance of its main function, the Manitoba Natural Products Marketing Council, through meetings, correspondence, perusal of minutes, reviews of financial statements and the prior approval of certain orders of the above Marketing Boards, has been assured that they were continuing to operate in accordance with the regulations prescribed in their respective Marketing Plans and the Natural Products Marketing Act.

The Council held twenty-six regular meetings, eighteen of which were attended by delegations, to review producer boards' respective policies, primarily relating to national agreements, quota administration, pooling and pricing practices. A major re-structuring of the Vegetable and Egg Producers' Marketing Plans was completed, intending to more clearly state the authority and limitations on authority of the producer boards, as well as to formalize developed policies into Regulations.

The Revised Vegetable Producers' Marketing Plan also amalgamated the Root Crop Producers' Marketing Board with the Vegetable Producers' Marketing Board further necessitating a new Quota Order and Administrative By-Law.

Under the Act, the Manitoba Natural Products Marketing Council is required to hear appeals by persons affected by decisions, or orders made or given by a producer board. The Council heard ten appeals, seven by individual producers, primarily regarding quota reductions, two by individual processors respecting milk pricing and one by a manufacturers' association respecting a change in a producer board's pooling policy. Council dismissed five appeals, and granted five, including that of the manufacturers' association.

Elections were not conducted for three vacancies on the Manitoba Milk Producers' Marketing Board as all were filled by acclamation. The Annual Meetings of the producer boards were attended and elections supervised as required.

As signatories to Federal/Provincial agreements involving eggs, chickens, turkeys and milk, the Manitoba Natural Products Marketing Council continued to take an active role in the reviews of the respective plans, as well as in the formulation of national policies respecting the aforementioned commodities.

In particular, the Council participated in discussions relating to the allocation of overbase quota for eggs, the allocation of the overbase quota for chickens and the Canadian Egg Marketing Agency's central pricing system.

The Natural Products Marketing Council continued with its policy of preventative enforcement. No court actions were taken during this year, although one seizure had taken place.

Management Services

Administration and Accounting

Administration and Accounting services provided include professional administrative, financial, and management accounting systems and services, ensuring expenditure and revenue control over public funds.

Accounting Services involve the orderly payment of the Department's accounts and the recording and management use of the data. Major activities during the year included:

- follow up on the implementation of manual commitment accounting by all Directors
- financial statement analysis on Agro-Man contracts, Weed Control Districts and other various grant recipients
- processing of 29,049 payment documents totalling $42,858,420.11
- processing of revenue transactions totalling $8,104,872.16

Administrative services were provided for the essential professional support to facilitate program delivery. Major activities during the year were:

- follow up on the workings of the direct purchase order system for local purchases
- finalization of office relocation of Manitoba Water Services Board and Agri-Water to Brandon
- co-ordination of recruitment of both budget and S.T.E.P. summer student positions
- implementation of a special trainee rate for designated student positions
- processing of 2,009 requisitions for office supplies, advertising and office equipment
- preparation of contracts on Agro-Man and various consultant studies
- research and preparation of Treasury Board Submissions

Internal Audit and Systems

This activity involves the responsibility for planning and implementing reviews of existing and proposed financial and procedural program systems of the Department and related agencies. It also provides a resource to senior management and makes contributions to policy formulation by offering advice on efficient and effective program delivery.

Activities for the year included:

- reviewing a number of program areas and making recommendations for improving the economy, efficiency and effectiveness of operations
- providing year-end accounting services to the Manitoba Water Services Board
- participating on various committees to provide input on program policies of the Departmental and central agencies of the Government.

Personnel Services

Personnel Services provides advisory assistance to management and staff on the recruitment and selection of employees, wage and salary administration, employee relations and staff training and development.

The emphasis within training and development was the provision of skills development in program evaluation, both at the management and staff level along with continued activity in the areas of computer technology, communications skills and farm management.

In the area of wage and salary administration, the Agrologist Series was reviewed and revised to facilitate upcoming organizational and program thrusts.

Computer Services

This activity is responsible for maintaining, enhancing and developing computer management systems that assist in efficient and effective operation of departmental programs.

Special activity occurred this year in the area of Soil Testing, Soil Survey and Sub-division of Agriculture lands. In addition Agri-Water began using Highways R.D.S. (Road Design System) to assist in the design of farm land drainage systems.

A micro-computer (TRS-80) was acquired to test its effectiveness in the area of Farm Management and a mini-computer (IBM System/34) was installed by MCIC in Portage La Prairie to run its Distributed Processing network.

Activity continued in developing and testing "decision making" models for use in the regions, using dial-up terminals, mini-computers and the "Grassroots" Telidon network.

Program Analysis

Program Analysis activity is designed to assist individual staff, branches or regions and divisions to evaluate the efficiency and effectiveness of the department's programs and activities.

Departmental directors and managers were assisted in their overall planning system including the development of goals, work plans and evaluation indicators. Emphasis was placed on the selection of specific activities for an evaluation of results achieved.

Staff worked in cooperation with the financial administrator, departmental directors and managers in preparing the budget estimates and revenue expectations for Executive, Ministerial and Cabinet review.

The department continued to utilize commodity and regional profiles in planning. All members of the Manitoba Agricultural Services Coordinating Committee (MASCC) and its committees were provided a copy of the profiles for consideration. Program Analysis also provided directors and managers with a coordinated presentation of departmental activities related to the potato and to the oilseeds crops profiles. Regional staff were provided with an analysis of farm income by agricultural representative district.

Throughout the year reports were developed relating to staff orientation, Agro-Man interim review, farm management program activities, "Grassroots" telidon and Manitoba Agricultural Services Coordinating Committee (MASCC). Secretarial and coordination activities were provided for MASCC and the Food Products Liaison Committee.

Program Analysis continued to provide program planning and evaluation input with regard to the operations of the Canada Manitoba Subsidiary Agreement on Value-Added Crops Production, Agro-Man.

Financial Administration

Financial Administration provided support to all divisions of the department. Activity centered on four major areas: annual estimates, sessional notes, cash flows and supplementary estimates.

The Department's annual estimates for the 1982-83 fiscal year were compiled through close cooperation with each director and presented to the Minister and Executive for review before Cabinet presentation. Sessional notes, describing the budget details for discussion by the Minister in the Legislature were prepared along with financial details at the appropriation level.

Continued emphasis was placed on estimating the monthly cash flow of expenditures and revenue at the program level for more effective reporting. Computer programs, previously developed for annual estimates and cash flow revised estimates, continued to be utilized to provide the Department Executive and program managers with more timely reporting. This proved most effective for decision making on financial matters related to the budgeting process. Revised and supplementary estimates for the 1981-82 fiscal year were compiled for unforeseen and emergency expenditures.

Financial reports, expenditure codes, unique codes and other related matters were developed.

Agricultural Research

University of Manitoba

During the fiscal year, Manitoba Agriculture provided a grant of $850,000 to the University of Manitoba in support of the University's

agricultural research program. The grant was used for the development and maintenance of the University's central research station at Glenlea. Funds were used, as well, to provide operational support for research projects carried out in all major disciplines, including agricultural economics and farm management, agricultural engineering, animal science, entomology, food science, plant science and soil science.

Manitoba Agricultural Services Coordinating Committee (MASCC)

Staff from the Department participated in the activities of the Manitoba Agricultural Services Coordinating Committee (MASCC). MASCC is an advisory committee, which recommends on methods of improving the quality of agricultural services provided to farmers and others in the agricultural industry. The Committee is chaired by the Deputy Minister of Manitoba Agriculture, and its membership includes representatives from the University of Manitoba, Agriculture Canada and Manitoba Agriculture. Input into formulation of recommendations is also provided by farmers and representatives from agri-business.

In 1981-82, MASCC approved recommendations pertaining to both research and to non-research and development. Recommendations of national significance were forwarded to the Canadian Agricultural Services Coordinating Committee (CASCC). Those of primarily provincial significance were directed to provincial agencies, including the Department of Agriculture, for consideration and implementation.

General Support Services

Pami

The Prairie Agricultural Machinery Institute is a joint venture of the provinces of Manitoba, Saskatchewan, and Alberta. It was established in 1974 to evaluate farm machinery and to carry out development work to improve the design of farm machinery in the prairies. The Institute has facilities at Humboldt, Saskatchewan; Lethbridge, Alberta and Portage la Prairie, Manitoba.

All test reports published by the Institute are provided to subscribers at a cost of $5 per year. There are 13,000 subscribers. Individual test reports are available at no charge upon request from the Prairie Agricultural Machinery Institute, P.O. Box 1900, Humboldt, Sask., S0K 2A0.

The government of Manitoba made a grant of $477,100 to PAMI for the year.

Manitoba Farm Machinery Board

The Manitoba Farm Machinery Board is responsible for the administration of the Manitoba Farm Machinery and Equipment Act. The Board's major activities and programs are designed to achieve the Board's prime objective, to improve and up grade service to the end user of farm equipment, in the province of Manitoba.

Current estimates place the Canadian Farm Cash Income for 1981 in excess of eighteen billion dollars. Historically, the relationship between farm cash receipts and farm equipment purchases is between 10 and 12 per cent. Current estimates indicate this relationship was maintained during the past year. The continual increase in capital expenditure for farm machinery requires a priority be given to policies and programs of the Board, for continual improvement in parts and shop service, particularly at the dealership level.

With the increased cost and capital investment in farm machinery, as agricultural equipment continues to get larger and more sophisticated, an effort to maintain and improve service to the end user becomes more critical and more important each year. To meet this challenge emphasis was placed on the inspection program. In 1981 this program was reviewed and revised where it was deemed necessary and the program was completed on schedule. The inspections and performance ratings were carried out based upon the classification of types of equipment sold, the parts stocking program and service facilities required by each dealership. The benefit of this program was reflected in the reduction in complaints referred to the Board during the past year.

Total complaints received and processed by the Board during the past year were down some 30.71 per cent, in a year when the industry experienced disruptions, corporate changes and serious financial problems.

Applications for leave to repossess processed by the Board rose by some 40 per cent. Approximately 82 per cent of the equipment covered by these applications were not repossessed as payments were received or mutually satisfactory arrangements were developed prior to the time of repossession. Although there was a marked increase in the number of applications for leave to repossess received, the "payout" on a per unit basis were equal to or slightly higher than previous years.

Under the licencing program the Board issued 498 dealer licences and 149 vendor licences, including renewals and new issues during the fiscal year ending March 31, 1982. Under the Manitoba Farm Machinery and Equipment Act Fund, which is administered by the Manitoba Farm Machinery Board, 121 dealers and 44 vendors were accommodated and purchased coverage as required under the bonding and licencing provisions of the Manitoba Farm Machinery and Equipment Act.

The Board received more requests for assistance and information than ever before. These inquiries covered such areas as; availability of special and obsolete parts, proper completion of Statutory Purchase Contracts, rejection procedures, termination of agreements and other matters of importance to individual farmer purchasers, dealers or vendors.

The Board held several arbitration meetings to consider and resolve on a mutually satisfactory basis, disputes between vendors, dealers and purchasers as required. In addition, in response to requests from the field, the Board met with local groups and organizations to discuss and explain the Manitoba Farm Machinery and Equipment Act and its application.

The Board continued to work with Assiniboine Community College in developing the two year Farm Machinery Mechanics Course. The Board also has a member on the Advisory Committee.

The Board held ten regular Board Meetings and fourteen Committee or Special Meetings including:

- Arbitration Meetings to resolve and settle complaints.
- Advisory and special meetings in regard to the Farm Machinery Mechanics Course.
- Meetings with Dealer Groups.
- Meetings with Manufacturer Associations.
- Tri-Province Meetings.
- Meetings in regard to leasing of Farm Machinery and Equipment.

Communications

The Communications Branch and regional communications specialists provide support for all policies, activities and programs of the department, using all available media techniques. Direct general support is provided on a daily basis through mass media. Department staff support is provided in the audio visual and print media, through provision of a wide range of instructional and communication aids. A new medium was added to the service this year, with the introduction of the "Grassroots" telidon system for Manitoba farmers. The department provided some 200 pages of data for this system and 25 demonstrator terminals were located in department offices.

Print Services:

Press - The regular weekly press release service was maintained, with 320 releases issued to 750 recipients. In addition 66 Intercoms were distributed to departmental staff as an internal information service. Specialized press coverage was provided for such major activities as Manitoba Agronomist Conference, Weed Fairs, Hog Days, Grain Days and the Pork Production Homestudy Course.

Publications - Some 300 print projects were coordinated by the publications section this year. These varied from one page technical fact sheets to very sizeable publications on field crop recommendations and weed control. Branch services ranged from writing and design to printing arrangements and distribution. Technical content in most cases was provided by department specialists.

Distribution of publications continues through the Department's Distribution Centre and 40 rural offices. During the year 612,000 copies of publications were distributed.

Audio Visual Services

Radio - Four province-wide radio services were provided during the year involving all rural stations. "Country Comment" provided farm related information on a daily basis. "Consumer Update" provided a similar service on consumer topics, while "Garden Greens" and the weekly insect report were produced and broadcast through the spring and summer months. In addition, special radio reports were issued periodically and a 15-part series called "Pork Review '82" was produced in cooperation with regional communicators.

Television Service - Province-wide television service was provided by the weekly "Farm-Scene" program, where contents ranged from current farm events to filmed features and items on rural community activity. A weekly regional program "Agrinews" was produced by the Northwest regional staff and telecast in that region. During the early winter period some forty short TV items were produced for use on CKND-TV Winnipeg and CKYD-TV Dauphin.

Film Production - Most of the 34,000 feet of 16mm film shot during the year was for the department's television services. However, several short items were produced for uses other than TV and one feature was produced called "Range Patrol".

Graphic Design - Graphic design and production continues to support a wide range of needs in the visual realm throughout the department. This service supported projects in films, slide sets, television overhead transparencies, publications, press releases and displays.

Still Photography - Branch still photography services fill a specific need in the production of television, publications, slide sets, homestudy courses, displays and press service. A photo file is developed on an on-going basis for the use of the entire department. Twenty-four slide-tape productions were completed during the year.

Audio Visual Library - The department's audio visual library located in the distribution centre stocks over 200 films and slide-tape sets. Bookings through the distribution centre this year totalled 1,284.

Promotion and Advertising

Most advertising done on behalf of the whole department is handled by the Communications Branch. During the year major advertising and promotional activity was carried out on fall soil testing, Pork Production Homestudy Course, Manitoba Weed Fairs, Outlook Conference, Hog Days, Hog Income Insurance, Grain Days and the Crow Rate situation.

Pork Production Homestudy Course

Manitoba Agriculture's third venture into the multi-media homestudy realm this year cen-

tered on a course on pork production and marketing. The course involved eight mail-out homestudy lessons, a special 15-part radio series, special newspaper articles, and regional and district meetings. Over 900 Manitoba farmers registered for the course. A follow-up evaluation study showed strong support for the pork course and 86 per cent of the respondents stated they would be interested in taking further courses in the homestudy pattern.

Regional Communications Services

Regional communications specialists provide services to all regions with most activities developed in consultation with regional staff. All available media are used for the dissemination of information throughout the region.

The specialists provide an advisory and consultative service to regional staff on most communication matters. In addition specific activities, particularly in the mass media area, are carried out by the specialist on behalf of the entire region. These projects include broadcast television, cable television, radio, photography, press reports, newsletters, publications and the maintenance of media relations.

Regular or periodic radio reports are produced in most regions. Weekly regional television programs are broadcast from Dauphin and Brandon. Twenty-four half-hour "Agrinews" programs were produced and telecast in the Northwest region, while in Brandon department material was provided periodically for the weekly "Agriviews" program and regional home economists were involved in the "Take Time" weekly half-hour program on both Brandon and Dauphin.

Other regional communications services included regional advertising, general promotion and public relations related to regional interests and a support to many Communication Branch projects. Notable in the latter category was the regional support for the Pork Production '82 homestudy course. Homestudy promotion was carried out in each region, a 13-spot TV series was telecast in the Southwest Region and a 15-part radio series called "Pork Review '82" was produced jointly and broadcast province-wide.

Marketing

Market Analysis & Information

The Market Analysis and Information section of the Economics Branch prepares and distributes up-to-date marketing information to producers. Department staff have ready access to North American market trends through Reuters, I.P. Sharp, U.S.D.A. and local marketing authorities.

Information is prepared and distributed weekly through a newsletter, "Manitoba Markets". It offers reports on grains, special crops and oilseeds and livestock prices. Quarterly situation and market outlook reports are prepared for grains, oilseeds, special crops, cattle, hogs, dairy, chicken, eggs, & sheep production. These reports are distributed to interested producers, researchers and agri-business representatives.

Outlook Conference

Manitoba Agriculture's annual Outlook Conference is a major extension forum that provides Manitoba producers with information on future marketing trends. The 1981 Outlook Conference was held at Brandon and Oak Bluff.

Food Marketing

This section conducts research, analysis and extension activities in all areas of food economics from the farm gate to the retail market in Manitoba.

Major research activities dealt with the comparison of food prices among Winnipeg food chains, in various Manitoba communities, between Winnipeg and Canada and amongst world capitals. Food consumption trends and food expenditure statistics are offered. Various Manitoba agriculture commodities were investigated from the farm gate to the retail market.

A weekly newsletter "Manitoba Food Market Review" reports producer, wholesale and retail food prices and price spreads for 20 Manitoba food items. Each issue contains a commentary on food market trends and outlook as well as a short article on some part of the food marketing chain.

A quarterly review "Manitoba Food Situation and Outlook Report" presents a compilation of food prices during that quarter together with a forecast of prices to be expected in the next quarter.

International Trade

This service provides research support to the Marketing Branch and other departmental staff on trade restrictions, regulations and market potential of various products. Livestock and meat trade prospects of major trading countries, Manitoba's markets and regions of potential for specific products in the United States were evaluated. Information was

gathered to meet requests on special crops such as corn, buckwheat, pulses, fresh vegetables and wild rice. Impact evaluations were conducted on diverse issues such as research and development in the food industry, general preferential tariff extension, CANAGREX, common fund for commodities, GPMC task force report, challenge for growth, etc., to assist in arriving at a Manitoba position.

Statistics

The Statistics section collected, analyzed and provided statistical data on Manitoba agriculture for use by farm organizations, agribusiness, news media, libraries, staff, government agencies and agricultural researchers.

Publications prepared included the 1980 Yearbook of Manitoba Agriculture, the weekly Crop Report and the monthly Agricultural Conditions Report. Other projects included:

- Preparation of estimates of the 1981 area seeded to special crops in Manitoba; quarterly estimates of cattle and hog numbers by category and crop district; August, September and November estimates of production of principal field crops; estimates of the production and value of vegetable production in Manitoba; and estimates and forecasts of the value of agricultural production in Manitoba.
- Surveys on herbicide use in Western Canada and fed cattle in Manitoba.
- Preparation of monthly dairy reports for Statistics Canada.
- Manitoba Statistics reports were prepared on crops, livestock, finance and farms.
- Manitoba Agriculture completed 100 years of publishing agricultural statistics in 1980. A special publication entitled "100 Years of Agriculture in Manitoba - A Statistical Profile 1881 - 1980" was issued in commemoration of this event.

Promotion and Merchandising

The department continued its support of marketing boards, producer associations and the industry, in promotion of foods grown and processed in the province. These activities included participation in livestock exhibitions, domestic and international trade shows, as well as multiple commodity promotion in shopping malls, fairs and exhibitions and home shows.

Participation in various shows included The Fruit and Vegetable Wholesalers Convention, CENTREX '81, Safeway Trade Shows, Minneapolis/St. Paul Trade Show, Red River Exhibition, Nutrition Fair, The Bay Manitoba Food Products Promotion and several shopping mall exhibits. Promotional activities on behalf of the livestock industry included participation at the World Chianina Conference, Agribition, American Pork Congress, The Royal Manitoba Winter Fair and Hog Days.

Major promotions during the year included:

- Manitoba Food Products Event
- Retail Point-Of-Sale Material
- Fresh For Flavour Foundation
- A number of promotional campaigns on Manitoba chicken, turkey, eggs, vegetables, beef, pork, lamb, milk and honey.

Feed Testing Laboratory

The Feed Analysis Laboratory serves the Manitoba livestock industry by assisting livestock operations through improved nutritional programs for farm animals.

The laboratory analyzes feed samples submitted by livestock producers, feed companies, veterinarians, department staff and others. Chemical analysis are forwarded to the animal or poultry nutritionists for interpretation and comment.

For the year, the laboratory analyzed 513 samples of grain, 1,996 forage samples, 532 complete feed and 2,016 unclassified samples for a total of 5,067 samples. These samples were tested by 18,830 analyses.

In addition to the feed testing activity, program direction was provided on an Agro-Man Trace Mineral Project involved studies in the animal, plant and soil areas.

Community Water Service

The Agri-Water Branch is responsible for the water related activities of Farm Water Source Development, Community Water Source Development, Agricultural Area Water Pipeline, Agricultural Community Water and Sewage systems, Farm Irrigation, On-Farm Water Management (Drainage) and Dugout Filling.

Water Source Development - Technical assistance was provided on 50 projects. A total of $147,740.61 in rebates were paid on 41 projects by Agri-Water to local governments for the development of water sources from which farmers and community residents may haul or pipe water.

Agricultural Area Water Pipeline - During the past year a total of 3 proposed pipeline projects

were dealt with involving a total of 36 miles of pipeline to provide water to 3 communities, 49 farmers, and 20 rural residents. No projects were installed.

Agricultural Community Water & Sewage - Agri-Water provided technical assistance on 22 community projects during the past year. Rebates totalling $144,316.29 were provided to local authorities for 9 projects undertaken, with 2 of these projects involving an experimental system utilizing small diameter pipe on a gravity sewage system.

A Clean Environment order was issued for effluent irrigation from the Roblin sewage lagoon on August 5, 1981. The proposal called for a primary site - 34 hectares (135 acres) and a secondary site - 54 hectares (135 acres) to be irrigated by one towable center pivot irrigation unit which was installed in 1981 to bring into operation in 1982. In years of extremely high precipitation, gated pipe will also be used to irrigate an adjoining ¾ section of farm land. The gated pipe was utilized to flood irrigate 26 hectares (64 acres) of alfalfa and 20 hectares (50 acres) of grain stubble with 66,000m^3 (14.7 million gallons) of effluent during the month of October, 1981. Three years of agronomic, environmental and public health monitoring of this project is planned with the major monitoring contract being held by the University of Manitoba.

On-Farm Water Services

Water Source Development - Technical assistance for farm water source development is available, as required, to solve serious water problems through farm calls and detailed designs. A total of 2240 requests for technical assistance were dealt with, while financial assistance totalling $110,705.49 was provided to 119 farmers to assist in the development of satisfactory water sources which did not qualify for PFRA assistance.

Dugout Filling - Due to the drought and low runoff conditions encountered, the basic fee for filling dugouts was again waived. A total of 1153 dugouts were filled with 792 being filled by Manitoba equipment, 177 filled with PFRA equipment and 184 filled by commercial means.

Pesticide Licencing and Control

Entomology

The main objective of the Entomology Section is to promote safe and effective control measures for insect pests affecting agricultural production. Technical information is made available and assistance provided to regional field staff and producers on insect pest control problems. Timely information on insecticides and insect pest control was disseminated through radio, television, newspapers, meetings and short courses, newsletters and a Manitoba Insect Report issued weekly throughout the crop season.

Department entomologists conducted or were involved in field trials to evaluate insecticides and methods of application, served on committees responsible for establishing correct and safe pest control recommendations and maintained continuous liaison with research, regulatory, extension and other personnel involved in insect pest management.

Licencing

A total of 896 retail pesticide outlets and 182 commercial pesticide applicators were licenced in 1981 under the Pesticides and Fertilizers Control Act. New licences were granted as a result of applicants successfully attending one of six pesticide dealers courses or one of five pesticide applicators courses presented by Manitoba Agriculture.

Residue Testing

A monitoring program for pesticide residue in agriculture products continued in 1981 under the direction of the Committee on Pesticide Residue Testing. A total of 353 samples were analysed with no significant pesticide residue problems found.

Insecticide Supply

Two chemicals are handled by the department. Six hundred gallons of malathion were stored but no call on this material this year.

Approximately 5000 gallons of Dimethoate was distributed for grasshopper control, with 300 gallons going to municipal offices and 4700 gallons to dealers.

Vertebrate Control

The appointment of a vertebrate control officer in mid-year permitted an accelerated program of assistance to Manitoba municipalities, farmers and horticulturists, in reducing losses to vegetable pests. A major emphasis in the vertebrate program was the organization of a rat control program in the Eastern Region. Other activities included the assembling and distribution of information on control of rats and other vertebrate pests.

Livestock Management and Marketing

Dairy

Sales to the Manitoba Milk Producers' Marketing Board and provincial creameries reached 290.7 million litres (660 million lbs.) an increase of 0.61 per cent from 1980/81. Fluid milk sales were 103.3 million litres (234.5 million lbs.), down 0.2 per cent. Farm separated cream production dropped 8.6 per cent to 31.9 million litres (72.4 million lbs.) milk equivalent. The drop in cream production and class I sales resulted in an increase in the milk supply for industrial products. Industrial milk use increased by 0.9 per cent to 155.4 million litres (352.8 million pounds).

Farm Cash Receipts - Dairy farm cash receipts including subsidy payments totalled $109,635 million. Payments from the Manitoba Milk Producers' Marketing Board and the creameries reached $98.68 million, comprised of $94.63 million from milk sales and $4.05 million from farm separated cream sales. The price paid to producers rose from $34.97/hl ($15.40/cwt) in April 1981 to $39.18 ($17.26/cwt) in March 1982. Creamery payments rose for self-delivered farm separated cream from $3.44 per kg. ($1.71/lb) in April 1981 to $3.64/kg. ($1.65/lb.) in March 1982.

Subsidy Payments - Subsidies are based on eligible market share quota shipments made within the dairy year. Manitoba Market Share Quota allotment remained constant at 6.656 million kg. (14.67 million lbs.) of butterfat as of August 1981. The subsidy remained unchanged at $6.03/hl ($2.66/cwt) for milk testing 3.5% butterfat. Support prices for butter and skim milk powder were set at $3.95 and $2.37 per kg. ($1.79 and $1.07/lb.) respectively on August 1, 1981. These increased to $4.17 and $2.50/kg. ($1.89 and $1.13/lb.) on April 1, 1982. Manitoba received $10.955 million in subsidy payments. However, with an in-quota levy of $3.05/hl ($1.34/cwt), on all market share quota shipments and a skim levy of 30.15¢/hl (13.3¢/cwt) on all class I shipments, totalling $4.894 million, a net subsidy payment to producers of $6.061 million resulted. The over quota levy was set at $17.13/hl ($7.54/cwt) on August 1, 1981 but due to surplus production was raised to $20.21/hl ($8.90/cwt) in April 1, 1982.

Nutrition

Over 22 per cent of the Province's dairy producers requested feed analysis and feed recommendations. A series of nutrition workshops was held. Areas of major emphasis included mineral supplementation, calf nutrition, relationship between feeding programs and milk fat test and comparative pricing of protein feeds. A pamphlet "Feeding Canola Meal to Livestock" and several factsheets were produced.

The butterfat-protein inversion program was continued for a third year. There was a marked decrease in the number of producers having inversions during the 1981-1982 winter as compared with the previous two years.

The "Production Dollar Index" (PDI) is now distributed to all dairy producers in the province. PDI is a semi-annual report summarizing the most recent production and type of information for all proven dairy bulls in Canadian studs. Presentations on sire selection and the use of PDI were made at producer meetings and five A.I. courses.

The "Early Pregnancy Diagnosis" program was discontinued in 1981 due to lack of participation and funding by dairy producers.

Breeding

Manitoba Agriculture supports two milk recording services, the Dairy Herd Improvement Association (DHIA) and the Owner Sampler (O/S) program to improve the production performance of dairy cattle in the province.

Dairy Herd Improvement Associations (DHIA) - During the year DHIA experienced more growth than previous years with the organization of four new DHI Associations. These were the Yellowhead DHIA in the St. Lazare area, the Lake Centre DHIA in Arborg, the Mound View DHIA in Pilot Mound and the Agassiz DHIA in the Beausejour area. This brings the total number of associations in the province to twenty.

Actual membership increased from 196 herds in April 1981 to 246 herds on March 31, 1982. Interest in the Official DHIA program intensified with 17 new herds enrolled for a total of 31 as of March 31, 1982.

Annual meetings and record keeping workshops were held with all 20 associations along with several training workshops for the DHIA supervisors.

National Identification Program (NIP)

Producers continued to positively identify some of their grade animals. Numbers of animals identified since the program started:

1977 - 1,265;
1978 - 1,713;
1979 - 1,535;
1980 - 1,834.
1981 - 2,587;

Owner/Sampler

Cows on Owner/Sampler (O/S) increased in 1981 over 1980 reflecting a 1.6 per cent increase in cows on test and a 8.4 per cent increase in herds on test. Production on a per cow basis remained fairly constant due to the large turnover in herds. Many O/S herds transferred to DHIA during the year.

TABLE 1

Official DHIA Herds

	1980	1981
New Herds Qualifying	5	15
Discontinuing Herds	0	3
Herds Official at Year End	16	28

DHIA Summary (1980 - 1981)
(January 1 to December 31)

	1980	1981
Associations in operation	16	19
Herds on test for 12 months	143	162
New herds on test	33	62
Discontinued herds	19	16
Total herds on test during the year	195	238
Herds on test on December 31	176	222
Cows on test on December 31	8,209	10,685
Average kg milk per cow	5,853	5,829
(Average lb. milk per day)	(12,904)	(12,850)
Average kg. fat per cow	199	198
(Average lb. fat per cow)	(438)	(436)
Average B.C.A. milk per cow	123.7	123.1
Average B.C.A. fat per cow	115.2	112.2
Composite B.C.A.	119.5	117.7
Percent of herds on test	13.6	17.8

TABLE 2

Owner/Sampler Summary (1980-1981)

	1980	1981
Herds on test for 12 months	81	86
New herds on test	30	32
Discontinued herds	21	23
Total herds on test during the year	128	139
Herds on test on December 31	107	116
Cows on test December 31	4,994	5,076
Average kg. milk per cow	5,322	5,330
(Average lb. milk per cow)	(11,708)	(11,747)
Average kg. fat per cow	181	184
(Average lb. fat per cow)	(398)	(406)
Average B.C.A. milk	113.2	116.6
Average B.C.A. fat	103.8	106.8
Composite B.C.A.	108.5	111.7

Buildings and Materials Handling

Construction of some planned dairy facilities were postponed due to economic conditions, but in numerous other cases construction went ahead. The Central Region reported interest in porous ceiling ventilation systems in dairy calf barns with a number constructed. Several tie-stall dairy barns were built in the same region. Dairy barn clinics were held in the Interlake Central, and Southwest Region reported a noticeable improvement in the quality of hay and hay storage on many dairy farms.

Disease and Insect Control

The Departments' monitoring program for Pesticide Residues in agricultural products continued with 353 analysis completed.

Dairy Laboratory

Microbiology - Producer samples and processed dairy products are tested for total bacteria counts, coliform counts and bacterial inhibitors (antibiotics). Tests for added water in raw and finished products are also performed.

For the year 24,200 total bacteria counts, 5,700 coliform counts, 24,800 tests for inhibitors and 15,200 tests for added water were made. Yeast, and mould and proteolytic counts on butter, keeping quality tests and phosphatase tests on fluid milk products and staphyloccoccus counts were done on selected samples of both raw and finished products. In total 91,000 tests for routine and special analysis were completed.

Milk Compositiion - Output in this area continues to increase each year. The main increase is in the DHIA and Owner Sampler area. This more than offsets the decline in producer payment samples that continue to be analyzed weekly for milk fat, protein and lactose. Analysis of all individual cow samples submitted under the Owner Sampler and DHIA programs were conducted monthly and fluid milk product analysis were done twice weekly. In total, 195,585 analyses were performed.

Chemistry - Manitoba Agriculture's program of monitoring herd samples for somatic cell levels to aid in the detection of mastitis, continued. Compositional analysis of various processed products were performed and an evaluation of flavour problems in both raw milk and finished dairy products took place. There were 15,000 analyses conducted.

Processor Services

Inspections of Manitoba's dairy plants and depots takes place under this activity. In-depth inspections on industrial plants were conducted in conjunction with Agriculture Canada while inspections of fluid plants were conducted by Manitoba Agriculture. Follow-up inspections are made where necessary. Three hundred and eighty-nine plant and depot inspections were completed.

Including seminars and meetings, 246 calls were made to plants regarding product quality. There were 2,343 tests for quality and composition of farm separated cream, and 32 bulk wash-up station evaluations conducted. Inspections were made of 10 margarine storage facilities and one margarine manufacturing facility. Random sampling and testing of 36 samples of margarine were conducted. Forty-five consumer complaints were received, with 23 plant contacts or visits resulting. Approximately 7,483 litres (17,000 lbs.) of contaminated dairy products were recalled.

The quarterly newsletter "The Clarifier" continues to be published for distribution to processors.

Farm Services

At March 31, 1982 there were 1,247 milk producers as opposed to 1,292 at March 31, 1981. There were 3,784 farm visits, concerning quality milk production in all its' aspects from microbiology and chemistry of cleaning, to environmental control in buildings and equipment.

Field staff and central office participated in ten regional producer meetings featuring quality milk production and mastitis control. The Mastitis Prevention Program continued with the intensity that staff time would allow. During the past year the percentage of producers' samples showing less than 500,000 per ml jumped from 27.4% to 45.1%. This is a very considerable improvement, which indicates the beneficial impact of the Mastitis Control Program.

The incidence of added water and bacterial inhibitors both declined in 1981, by nearly 50%. Again this is a marked improvement. Both are now less than 1% of total tests conducted.

Milk transportation inspection, training, licencing and supervision of transport vehicles and driver graders continued as in past years. There was one 3-day driver grader training course, prepared and delivered along with 3 re-

fresher courses for licenced driver graders. There were 250 inspections done on bulk milk transports, driver graders, and sample holding facilities during the past year.

A new Holstein Club organized in the Central Region with 56 members enjoyed a particularly successful year.

Agro-Man

A project dealing with the use of canola meal in dairy cow and growing-finishing hog rations was continued. Three long term dairy trials and four hog trials have been completed. The data is being summarized and analyzed before being released as extension material. Extension activities related to the project include three radio tapes, several articles in magazines and various presentations at canola growers, dairy and swine producers' meetings.

Dairy Goats

Four dairy goat producers are enrolled in an Owner Sampler milk recording program. The program is administered provincially in cooperation with the Canadian Goat Society and Macdonald College.

Extension activities included writing of information articles in Capri-Lines, a Manitoba Goat Association newsletter and organizing a workshop at which reproduction, nutrition and the Dairy Act were discussed.

The only licenced dairy goat herd in Manitoba stopped producing goat's milk in 1981. Since that time, the department has received many inquiries regarding availability of goat's milk.

Beef

The beef cattle industry is an important part of Manitoba's agricultural sector, with farm cash receipts representing 17 per cent of total farm cash income. Most regions report the difficult economic times have prompted many beef producers to take steps to improve their efficiency.

Beef producers include dairy operators, cow-calf operators, cow-calf and feedlot operators or feedlot operators. Of Manitoba's 14,500 beef producers, 24 per cent are fluid milk or cream shipping operations, 41 per cent are cow-calf operations, 34 per cent are cow-calf and feedlot operations and one per cent have feedlot operations.

Nutrition

Approximately 1,000 detailed feed recommendations on 2,100 feed samples were prepared and sent out to beef producers. In addition, follow-up services and other nutritional ration recommendations were supplied in response to producer requests.

In the fall of 1980, 120 lightweight heifer calves (165 kg) entered the Livestock/Forage Research Application Farm at Gunton with the purpose of demonstrating the viability of feeding out these "poor-doers". The effectiveness of two levels of backgrounding, as well as pasture versus drylot finish were then evaluated. Animals were marketed on visual assessment of their finish. Days to market and carcass quality were measured.

As indicated in Table 3 the best results were obtained when heifers were winter fed a target ration for 0.9 kg per day gain as opposed to 0.7 kg per day. The drylot finished heifers had heavier market weights (379 kg versus 359 kg) and required 17.6 fewer days than those finished on pasture (82.3 days versus 99.9 days).

Results of carcass evaluation (Table 3) imply that the net returns are likely to be less for those heifers finished on pasture because of lower grades.

This demonstration project was continued into 1982 with a new entry of light heifers in the fall of 1981.

Health and feeding programs to meet the unique requirements of these calves were developed and demonstrated. Management practices such as preconditioning, growth implants, freeze branding and fly control, were also demonstrated.

All cattle used in these demonstrations are owned by cooperator-farmers who bring their cattle to the project site and pay a fee to defray feed costs. Participation by individual producers maintains a high level of interest in the management techniques being demonstrated. Producers are kept up-to-date on project activities through regular newsletters, several open days and articles in the farm press.

TABLE 3

Feedlot performance and grades of heifers on different management feeding programs

Feeding Program	Management Program	Days to Market	% Grading A1, A2
High Energy	Drylot Finish	76.8	98
Low Energy	Drylot Finish	87.7	
High Energy	Pasture Finish	95.2	81
Low Energy	Pasture Finish	104.2	

Breeding

Total efficiency of beef production is very important to producers faced with the present high costs of production. Breeding programs are aimed at increasing total efficiency through genetic improvement and use of current technical information.

Federal-Provincial Record of Performance (ROP)

This program is used by producers as a within-herd evaluation of animal performance. The number of herds participating decreased slightly (Table 4) over 1980. Dry weather conditions are suspect as the major cause of the decline in numbers.

TABLE 4

Number of herds and recorded weaning weights (WW) and yearling weights (YW) for 1978 - 1981

Year	Herds	WW	YW
1978-79	385	14,027	11,053
1979-80	428	15,621	10,980
1980-81	375	14,923	10,135

TABLE 5

Summary of the Progeny Proving Program (PPP)

	1978	1979	1980	1981
Number of bulls selected	6	3	4	5
Number of test herds enrolled	47	29	37	37
Number of calves completing records				
Number born	487	370	N/A	N/A
Number with weaning weights	470	362	N/A	N/A
Number with yearling weights	356	332	N/A	N/A

Progeny Proving Program (PPP)

PPP is intended to improve the genetic performance in Manitoba beef herds by selecting the top gaining bulls out of the Manitoba Bull Test Station and offering semen from the bulls to cooperating herds.

These superior bulls are identified for future use in artificial breeding. As a result, artificial inseminations in beef herds have increased. Semen from superior bulls is also being used at the Douglas Heifer Project, the Ashern Grasslands Project and the Marco Grassland Association.

Progeny proofs were completed on four bulls test mated in 1978 and 1979. All were plus proven for weaning weight and the two Charolais bulls ranked in the top 15 per cent of their breed. The Angus bull was the second easiest calving bull evaluated.

Sons of the test bulls are returning to the Manitoba Bull Test Station and achieving superior gains. Daughters of test sires are also weaning heavier than average calves.

Five new bulls were added to PPP in 1981 with the Simmental breed being represented for the first time.

Bull Test Stations

Interest in station testing bulls increased substantially. A total of 492 bulls completed test at the Manitoba Bull Test Station, 57 bulls completed test at the Manitoba Limousin Bull Test Station, 50 bulls completed test at the Manitoba Main-Anjou Bull Test Station and 72 bulls completed test at the Red Power Bull Test Station.

A total of 285 bulls from all stations were sold following the test. Bulls had to meet minimum performance and scrotal circumference standards. Most of these bulls were purchased by Manitoba breeders and ultimately will improve growth potential in their herds.

Provincial support is given to the Manitoba Bull Test Station with an annual grant of $50 per bull to offset a portion of the testing costs. To receive the grant, the bull must have had a weaning weight with contemporaries prior to delivery to the station.

Awards Program

The Beef ROP Awards Program was initiated to recognize outstanding achievement of individual beef producers. The award identified purebred and commercial cattle producers who demonstrate the effective use of production and performance records in achieving their breeding goals.

Field Trials

Fly control on cattle - Two separate field trials at Gunton and Douglas were conducted on beef cattle to determine the effectiveness of fenvalerate ear tags for fly control. The ear tag provided excellent control of horn and face fly, but did not appear to control stable fly.

Fly control in farm buildings - One field trial was conducted at Gunton in a loose housing barn to determine the effectiveness of fenvalerate for fly control. Fenvalerate was very effective in controlling the initial house fly population, and gave excellent residual control for the entire summer. Fenvalerate, along with other synthetic pyrethroids appears to have considerable promise for season long residual fly control in farm buildings.

Buildings and Materials Handling

Plans for a wide variety of farm structures were maintained, revised and distributed from the engineering office. A heavy demand for these plans continues and a lot of work goes into the updating of existing plans and developing new ones. The annual meeting of the CPS committee was hosted in Manitoba.

Branding

Manitoba cattlemen have become increasingly concerned about cattle theft and other cattle losses. Branding reduces the incidence of theft, and increases the chances of missing animals being returned. The return of one animal more than covers the costs of many years of branding and registration fees.

During the year, 170 new brands were registered to bring the total registered cattle and horse brands in Manitoba to 3,258. A biennial Register of Brands book is available.

Marketing

Beef Breeding Stock

The Department provided marketing assistance to local exporters resulting in the sale of purebred beef cattle and forage seed. Staff also co-ordinated sale details and assisted with the negotiation of prices.

A local exporter was assisted in the development of pricing structures for feeder cattle for Korea. A market investigation mission to Korea and Japan was conducted which identified several opportunities for Manitoba beef cattle and swine breeding stock sales.

Marketing staff also co-ordinated a mission to Mexico for first hand meetings with Government offices and institutions interested in purchasing Canadian livestock, and co-ordinated Manitoba Day at Agribition - November '81.

Dairy Breeding Stock

The Marketing Branch provided assistance to Manitoba Jersey Cattle Club (MJCC) regarding the co-ordination of shipping details surrounding the last phase of their sale of 360 animals to Mexico and assisted in the setting up of MJCC follow-up mission.

Assistance was provided to a local exporter in development of price quotations on Holstein cattle for Mexico. Staff identified marketing constraints regarding Mexican Government institutions requirement for dairy cattle grade certificates and discussed same with Manitoba Holstein Friesian Association and Department Officials.

Hogs

The hog industry plays an integral role in Manitoba's agricultural economy. In 1981, farm cash receipts from hog sales increased 23 per cent to $139 million or 8.4 per cent of total farm cash income, as a direct result of higher market prices. The weighted average 100 index price F.O.B. Winnipeg was up $10.75 to $67.41 per cwt, while hog marketings declined marginally (0.4%) with 1,166,803 head going through inspected plants. However, this marked the second consecutive year that market prices were well below cost of production. Swine producers received relief by participating in the Manitoba Hog Income Insurance Plan which supports payment at 93 per cent of production costs. Of Manitoba's 3759 active production units, 51 per cent are farrow-to-finish operators, 42 per cent grower-finishers and 7 per cent weanling producers.

Management programs are aimed at strengthening the managerial capacity and economic returns of Manitoba swine producers. Emphasis is placed on improving genetic performance, sow productivity, feed efficiency and carcass quality, and also providing farmers with current technical information.

Nutrition

A marked increase in swine feed samples were analyzed by the Provincial Feed Testing Laboratory. Analysis included comprehensive ration and feeding recommendations with follow-up farm visits upon request. Some regions reported a switch from barley to corn because of a price advantage.

Breeding

Manitoba Agriculture offers two swine performance testing/genetic improvement programs, the Federal-Provincial Record of Performance (ROP) and the Commercial Hog Improvement Program (CHIP) to improve breeding stock quality and total herd efficiency.

Both programs have contributed considerably to improved market quality of Manitoba raised hogs. Since 1978, the percentage of market hogs indexing 102 or better has increased by 10.6 per cent to 65.8 per cent in 1981.

Federal-Provincial Record of Performance (ROP)

Manitoba purebred swine producers evaluated 4308 animals under the home test and 309 young boars at the Brandon test station (Table 7). Continued improvement in leanness, evident by a noticeable reduction in backfat was shown. Overall average adjusted backfat thickness for station tested boars and home tested boars and gilts dropped 7,14 and 11 per cent respectively from 1980 levels.

Manitoba Agriculture published a bi-monthly report on the performance and availability of ROP tested breeding stock and held technician workshops and Provincial Advisory Committee meetings throughout the year.

Commercial Hog Improvement Program (CHIP)

CHIP offers both performance testing of replacement animals as well as a sow management - record keeping program for commercial producers.

Participants were provided with an ultrasonic backfat probe service and various record keeping materials and forms, including ear notchers, farrowing calculators, individual sow charts, sow herd record booklets and factsheets on record keeping. Besides assisting new producers in establishing a record keeping system and interpreting performance information, staff advised on other management practices and new developments in the swine industry.

During the year, 2069 gilts in 43 herds were tested (Table 6). CHIP herds continued their dominant role in provincial market hog quality by marketing 12.8 per cent more hogs in the 102 index or higher category than the provincial average and similar to their advantage achieved in the previous four years. In 13 participating CHIP herds in 1981 gilts and sows produced, on average, 2 litters per year, 20.76 live pigs per year with 14 per cent preweaning mortality or 17.16 weaned pigs per female per year. On average, the females were first bred 9 days after weaning with an 88 per cent conception rate on first service.

Swine Artificial Insemination

Artificial insemination training schools were held in Arborg, Morris and Brandon. Staff assisted producers with semen delivery and on-farm inseminations.

TABLE 6

Commercial Hog Improvement Program (CHIP) Summary (1980-81)

REGION	CHIP PARTICIPANTS				HOG MARKETINGS OF CHIP PARTICIPANTS					
	No. Producers		No. Gilts Tested		No. Marketed ≥ 102 Index		Total No. Marketed		Percent ≥ 102 Index	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
EASTERN	12	8	840	686	8199	3260	11107	3957	73.8	82.4
INTERLAKE	10	13	621	520	4500	6965	6489	9354	69.3	74.5
CENTRAL	5	9	233	201	1652	4202	2367	6070	69.8	69.2
SOUTHWEST	6	8	620	511	15719	24672	20706	29696	75.9	83.1
NORTHWEST	5	5	169	151	988	2286	1415	3567	69.8	64.1
TOTAL	38	43	2483	2069	31058	41385	42084	52644	73.7	78.6
								MANITOBA AVERAGE	59.1	65.8

Extension Activities

A major extension thrust during the year was the development of a homestudy course for swine producers. Other extension activities included 1981 Hog Days, commodity group workshops, regional meetings, on-farm consultations, and distribution of factsheets and audio-visual materials.

Manitoba Pork Production Homestudy Course

Manitoba Agriculture's third multi-media homestudy course featured the latest in swine production technical information. Over 900 individuals enrolled in the course and paid the $15 registration fee. Participants received eight illustrated, easy-to-read lesson books covering all aspects of pork production in Manitoba. Lesson books were mailed weekly, along with supplementary printed material. Additional information was presented at local meetings with some regions holding up to nine follow-up seminars. Also, there were special radio broadcasts and a series of special newspaper articles. Producer feedback indicated the course was extremely useful and that printed material would provide a valuable future reference for their hog enterprise. Many stated their hog production would improve significantly as a result and that they would definitely make changes in their production and marketing program.

Hog Days

Over 400 producers, industry and government representatives attended the 1981 Hog Days held in Brandon. The event featured producer seminars on nutrition and farrowing management and a large exhibition of agribusiness displays, in conjunction with creative pork cookery demonstrations in the local shopping malls for consumers.

Swine Factsheet Service

Subscribers to the service receive factsheets containing the latest recommendations on swine production and management. In 1981, six new publications and two revised factsheets on breeding, genetics, herd health and husbandry practices were issued. The near doubling of subscriptions to 350 individuals in the second year of operations reflects the strong producer interest in this type of extension medium.

Buildings and Materials Handling

Dozens of farmers received assistance from head office and regional engineering staff on designs of new barns, redesign of existing barns and improvement of waste management systems. Numerous contractors, suppliers and manufacturers of hog equipment also received advice and assistance on improving their products.

Ventilation systems and heat exchangers were evaluated in several hog barns, and new designs were developed and tested.

Evaluation of manure storage treatment and disposal methods was continued with the goals being to determine the most efficient land application methods, to reduce nutrient losses in storage and after application, and to minimize environmental pollution.

Marketing

Swine Breeding Stock - Assisted local exporter regarding the sale of purebred swine breeding stock to Mexico resulting from contacts developed during Marketing Branch mission to Mexico. Hosted incoming swine breeding stock mission from Dominican Republic.

Pork - Increased emphasis was placed on our marketing efforts to expand Manitoba pork markets in California and Pacific Rim Countries. This resulted in a first ever sale of Manitoba pork products to Hong Kong and increased sales to Japan and Western U.S.A. Much of the increased sales to the U.S.A. came about as a result of a close working relationship with Canada Safeway's Export Development Office in Edmonton. This involvement included arranging and hosting U.S.A. Safeway Stores Inc. Pork buyers missions to the Province and samples being forwarded to potential buyers in Hong Kong and Japan which eventually resulted in sales.

Agro-Man

Two Agro-Man swine project cooperators in the Central Region provided very effective demonstrations to other producers in the region. Existing and potential producers were able to learn about building design, energy conservation, quality breeding stock, sanitation and disease prevention, manure handling, ventilation systems and general management practices by visiting these locations.

TABLE 7

Swine ROP (Record of Performance) Summary (1979 - 1981).

Year	No. of Animals	Adjusted Age to 90 kg (Days)	Adjusted Backfat to 90 kg (mm)	Average Daily Gain (kg)	Feed Conversion (kg feed/ kg gain)
MALES STATION TEST (ROP Boar Test Station, Brandon)					
1979	351	150.0	15.0	0.86	2.51
1980	321	149.2	14.8	0.87	2.48
1981	309	151.6	13.8	0.87	2.53
MALES HOME TEST					
1979	1708	171.3	15.2		
1980	1735	172.9	15.7		
1981	1496	169.2	13.5		
FEMALES HOME TEST					
1979	2518	177.1	16.7		
1980	2826	182.6	17.0		
1981	2812	181.5	15.2		

Poultry

Poultry activities and regulations have as their objectives:

- Providing services directed at improving production and economic returns to individuals or groups within the poultry industry by offering management techniques and assistance in developing of improved marketing systems.
- Maintenance of quality standards for the marketing of eggs and poultry as prescribed under the Livestock and Livestock Products Act.
- Control of pullorum, typhoid and other diseases in poultry flocks through the hatchery and hatchery supply flock regulations.
- Improving the availability and acceptance of production technology for hatcheries and hatchery supply flocks.

Nutrition

Recommendations on 246 feed samples were prepared and sent out. In addition, nutritional information involving ration recommendations was supplied in response to producer requests.

Breeding

Broiler breeder operators were assisted by the distribution of a Record of Performance book. Assistance was provided on the use of the book. Records from 23 flocks were processed, summarized and presented to participating producers. News bulletins were issued covering areas of concern to breeders such as light control, management and vaccination.

Manitoba Agriculture conducts a hatchery monitoring project which involves a thorough examination of hatcheries and eggs in hatcheries. The effectiveness of sanitary procedures of both the hatchery and hatchery supply flock are assessed so that diseases may be detected and treated. Microbial plates were taken on site and interpretation of results rendered.

Provision was made so that hatcheries could, if they so desired, carry out a self-monitoring program using the microbial plates. Two hatcheries made use of this offer and used 150 plates at the hatchery level. Hatchery monitoring for breeder flock evaluation whereby hatches or portions are examined in detail was continued this year.

The department continued to offer owners of turkey breeding flocks the opportunity to have

their turkey toms graded through the collection and examination of turkey semen. This process allows the selection of toms with the greatest fertilizing capacity and the culling of those of poor breeding quality. Management suggestions accompany participation in this activity. Four flocks were graded totalling 1,682 toms.

Building and Materials Handling

Staff supplied information on ventilation requirements, light control and building design including efficient feeding, handling and housing facilities. Investigations and subsequent recommendations were made on heat loss problems, hot water heating systems, heat exchangers and hatchery ventilation. Systems for weighing birds were demonstrated and feed intake control systems scrutinized.

Poultry Health (Regulatory)

Application of the regulations under the Livestock and Livestock Products Act involved pullorum-typhoid testing of all hatchery supply flocks and the inspection of premises. Regulations require that all hatcheries with a 1,000 egg setting capacity or greater must be licensed by the department. Liaison with the Poultry Division, Agriculture Canada, is maintained as that agency is delegated the hatchery inspection authority by the province.

Hatchery supply flocks consisting of various breeds and strains are arranged often depending on conditions or upon requests for assistance. In addition to the pollorum test, turkeys are tested on the basis of a 10 per cent whole blood sample for P.P.L.O. and Salmonella typhimurium.

TABLE 8

Hatchery Supply Flock Statistics — Manitoba

April 1,1981 — March 31, 1982

Flock Type	Number of Flocks	Female Birds
Broiler		
(1) Regular Shippers	52	108,188
Layers	18	65,114
Dual Purpose	18	11,802
Turkey	13	28,600
	101	213,704

Disease and Insect Control

Mycoplasma gallisepticum and Mycoplasma synoviae continued to be of concern and a testing program to evaluate their status in broiler breeder flocks was conducted. Infectious Bursal Disease and its effects is another important problem which breeder flock owners are being encouraged to vaccinate against. Mycoplasma meleagridis free status is the aim of turkey breeders. The second year of a program of testing was carried out.

Collection of data concerning Salmonella in breeder flocks continued and involved collecting litter samples for analysis. Results were forwarded to Agriculture Canada staff as part of a larger Salmonella surveillance program. A major review of vaccination procedures was conducted and a fact sheet prepared and distributed on this topic.

Licencing

The department continued to administer regulations respecting poultry and poultry products under the Livestock and Livestock Products Act. These regulations required the licencing of poultry dealers. In this regard, 28 licences and 19 branch licences were issued. In addition 22 hatcheries were also licenced.

Marketing

Liaison was maintained with all poultry marketing boards as well as with commercial companies such as egg grading stations and processing plants.

Continued negotiations and further samples sent to Japan, resulted in additional sales of frozen chicken and turkey to a large Japanese supermarket chain. Shipments were made in

the fall of 1981 for arrival and distribution for the Christmas season. Executives of this supermarket chain also visited Manitoba during August of this year.

Discussions are also being carried on to fully explore the potential in Japan for deboned turkey meat. This program, if successful, could have far reaching benefits for Manitoba turkey producers and processors.

Bees and Honey

Following another relatively short and mild winter, spring conditions in Manitoba were excellent for the buildup of package and overwintered colonies.

Seasonable rains in the early part of the summer promoted excellent crop development in most regions and, as a result, many beekeepers were looking for a bumper crop. However, this did not materialize as the nectar flow showed a below normal reduction beginning in mid-July and continuing through August in many areas. This may have been partly due to continued reductions in the amount of canola being grown. Honey crop conditions were highly variable throughout Manitoba.

Package bee prices increased in 1981 ranging from $23.00 to $28.50 for a two-pound package of bees and a queen delivered in Manitoba. Approximately 28,000 colonies of bees were overwintered in Manitoba during the winters of 1980-81 and 1981-82.

TABLE 9

Production Summary

	1980/81	1981/82
Number of Beekeepers	1,400	1,550
Number of Colonies	99,400	103,000
Honey:		
Average pounds/hive	155	162
Average kg/hive	(70)	(73)
Total Production — lbs	15,345,000	16,686,000
Total Production — kg	(6,960,000)	(7,569,000)
Price/lb — ¢	57	61
Price/kg — ¢	(125)	(134)
Total Value	$8,747,000	$10,178,000
Beeswax:		
Production — lbs	230,175	250,290
Production — kg	(104,625)	(113,631)
Price/lb — ¢	231	228
Price/kg — ¢	(508)	(502)
Total Value	$ 531,704	$ 570,661
Total Value Honey & Beeswax	$9,278,704	$10,748,000

Package and Overwintering Survey (1981)

Again this year a survey was conducted to determine how many colonies were established from overwintered colonies and imported package bees. The survey indicated that 88,800 two-pound packages or their equivalent were imported with about 70% originating in California and about 28,300 colonies were established from overwintered colonies. Allowing for some loss in colony numbers, this results in about 103,000 "producing" colonies operated in Manitoba in 1981.

Apiary Inspection

During the summer of 1981 term inspectors were hired to carry out the inspection program. A total of 18,053 colonies were inspected and 345 or 1.9% were found to have American Foulbrood Disease. This compares to 1980 statistics of 22,500 colonies inspected with 649 or 2.8%, found to be infected with American Foulbrood.

Ethylene Oxide Fumigation

The honey bee equipment fumigation chamber has continued to be operated in two depot locations at Winnipeg and Rapid City. During 1981 approximately 2500 hive bodies were fumigated.

Extension Activities

Emphasis is placed on four general extension activities; newsletters, meetings, personal visits and support of beekeeper associations. Four general newsletters and eight commercial beekeeper newsletters were issued this year. The Extension Apiarist participated in various courses at the University of Manitoba and maintained close liaison with all industry organizations.

The department provides on-going assistance and coordination to the Manitoba Beekeepers Association, Manitoba Leafcutter Bee Association, Manitoba Honey Marketing Board, Manitoba Co-operative Honey Producers Ltd., Manitoba National Honey Show and the Manitoba Food Products Event.

Research

Research activities included involvement in queen rearing workshops, evaluating fumigation chamber effectiveness, studying indoor wintering of bees, studying fertility and incidence of disease in imported package bees and the monitoring of the effects of Baygon spray on honey bees.

Bear Damage

Again this year the Department of Renewable Resources offered a Bear Damage Compensation Program to beekeepers.

Manitoba continued to offer a Bear Fence Grant Program that allows for a $100.00 grant paid to beekeepers for each electric bear fence built, up to a maximum of ten fences per beekeeper per year. During 1981 grants were paid for a total of 35 fences.

Marketing

The honey market began to weaken after the honey crop was harvested and, by year-end, some beekeepers still had substantial amounts of unsold honey. As has been the case in the past, approximately 43 per cent of the Manitoba crop was delivered to the Manitoba Co-operative Honey Producers Ltd., about 50 per cent went on the "open market" and approximately seven per cent moved directly to the consumer.

Two containers of Manitoba honey were shipped to France this year as a result of department development activities. Promotion also included the production and distribution of a consumer brochure on Manitoba honey.

Sheep

Interest in sheep production remained strong, although low livestock returns discouraged some new producers and planned flock expansions. Producer interests were represented by an active Manitoba Sheep Association and the six affiliated Regional Sheep Associations. The second All Canada Sheep Classic was hosted at Brandon and Manitoba producers continued to be active in lamb promotion and market organization.

Nutrition

Numerous feed samples from producers were analyzed at the Provincial Feed Testing Laboratory, and feeding recommendations were made. Recommendations were followed by farm visits.

Breeding

Federal-Provincial ROP Home Test Program - In 1981-82, 2,431 lambs from 13 flocks were tested on the home test program, about 12 per cent of the lambs born. ROP data flow is coordinated by Manitoba Agriculture staff and extension work is carried out with the results at the producer level.

Manitoba Ram Test Station - The station located at Brandon is operated by the Manitoba Sheep Association, with facilities and labour supplied by Agriculture Canada. It is a central testing facility for identifying genetically superior ram lambs. Animals are tested for post-weaning performance under uniform management practices and environmental conditions. Manitoba Agriculture support includes veterinary assistance management and environment advice.

Extention

A Controlled Reproduction Workshop was held at Brandon to examine new fields of advancement in reproductive efficiency. A Lambing Workshop was held at Lundar to overview flock health management at lambing. A predator taste-aversion project was initiated at Dauphin. The newsletter "Sheep Sense" was published monthly and producers were visited by extension staff and area veterinarians.

Marketing

Slaughter numbers at federally and provincially inspected plants increased by 56 per cent (5,700 lambs in 1980-81 to 8,900 lambs in 1981-82), while the number of sheep marketed through public stockyards decreased slightly.

Considerable effort was extended in assisting the Manitoba Sheep Association in marketing plans and the promotion of sheep products. Producers were coordinated to market in patterns which would make their product available to Manitoba consumers. Lamb promotion was included in the 1981 Manitoba Food Products Event and departmental assistance was given in shopping mall promotion events.

Agro-Man

Two Agro-Man projects demonstrating increased grazing productivity for sheep on various cultivated forage species were continued. These projects are at The Pas, in cooperation with the Pasquia Sheep Producers' Association and at Thornhill, in cooperation with the South Central Sheep Producers' Association. An anti-predator electric fencing Agro-Man project was initiated in the Interlake Region in cooperation with the Interlake Sheep Association. This demonstrated increased grazing potential in predator problem areas.

Animal Nutrition Services

This service ensures that producers and owners of all species of animals have available the most up-to-date technical information on nutrition and nutritional practices. Detailed and easily interpreted feeding recommendations are provided in response to results of feed analysis.

Modern, efficient nutritional practices to support farmers in maximizing their returns are recommended. Preventative management and humane treatment of animals is encouraged.

For the year, over 1,600 feeding recommendations were made based on 3,500 feeds tested. A rapidly increasing percentage of producers are recognizing the value of and using this nutritional service in developing their total feeding program. Requests were: beef 60%, dairy 25%, swine 10% and horses, goats and sheep 5%.

In addition to written recommendations, nutritional information is disseminated via on-farm consultations, commodity group workshops, the media, and local and regional meetings.

Veterinary Services

Manitoba Agriculture develops and administers the programs and activities which are proven necessary to assure rural and urban Manitobans of ready access to competent veterinary services. Adequate veterinary care for the livestock industry is considered an important factor in the overall economy.

The department's animal health services include:

- supporting Veterinary Service Districts and assisting them to retain resident veterinary services for local needs
- providing a comprehensive diagnostic laboratory service
- encouraging disease prevention measures
- ensuring farmers access to top quality semen and artificial insemination services for livestock improvement.

All activities are directed to make rural veterinary practice attractive and adequately rewarding and to assure that veterinarians are involved wherever their expertise will benefit the livestock industry.

Western College of Veterinary Medicine

The Western College of Veterinary Medicine was founded in 1965 as a four western province venture to satisfy the long-standing western needs for veterinary training. Manitoba, Saskatchewan, Alberta and British Columbia share net "after federal" operating costs on an annual resident student basis. Of the present 70 student enrollment, Manitoba's quota is 12. There is no immediate intention to further expand the enrollment and continued active recruiting measures will be necessary to fulfill Manitoba's rural service needs.

Veterinary Districts

Provincial grants were made to assist Manitoba's 32 Veterinary Services Districts. Through these funds districts maintained and operated their public animal hospitals. These are well equipped and well manned rural facilities capable of handling all but extraordinary cases.

Amendments to the Veterinary Services Act in 1980 and the Regulation in 1981 increased the basic matching provincial grant from $5,000.00 to $7,500.00 per year and required each Board to priorize their expenditure of the basic grants to best maintain and operate their hospital. A further revision in the basic matching provincial grant, from $7,500.00 to $10,000.00 is proposed for 1982.

Veterinary Science Scholarship Fund

This activity provides Manitoba students with annual financial assistance for veterinary science studies. Scholarships of up to $750 per year are available to support such training and to encourage their engaging in rural Manitoba practice on graduation.

Veterinary Student Summer Employment

As our students must study out of province, Manitoba is vulnerable to the strong trend for veterinary students to locate where they have become familiar with practice conditions.

The summer employment activity attempts to offset this by bringing students home and employing them in a rural practice. This also serves to intersperse each of their academic years with four months of highly applicable and practical training appropriate to their academic level.

Veterinary Drug Distribution Centre

The Manitoba Centre gives Manitoba veterinarians access to volume buying power. It enables them to regain the stability of income and professional contact through competitive merchandising while utilizing their expertise to correct growing and oftentimes serious misuse of veterinary drugs. All direct operating costs were recovered.

Humane Treatment of Animals

Most rural veterinarians have volunteered to act as humane inspectors under the terms of the Animal Disease Act and to supervise humane treatment of animals. A cooperative arrangement with the RCMP has been effective and about 30 cases are checked on each year.

Manitoba Semen Distribution Centre

Artificial insemination has proven to be one of the most effective means ever developed to improve livestock, but Manitoba has too few to sustain a modern full scale producing stud and is caused by economic limitations to rely on imported semen. The Centre makes available high quality semen from genetically proven bulls wherever located without the cost of owning and keeping them.

Semen is purchased from other provinces, U.S.A. and overseas, in sufficient volume to meet Manitoba's demand and to assure Manitoba livestockmen of their choice at a reasonable price. Sufficient discount is attained on the volumes purchased to fully recover the operating costs of the Centre.

Provincial Veterinary Laboratory Services

The Veterinary Medical Laboratory is a major reference centre specializing in the diagnosis of all diseases which may effect animals in Manitoba. It supplements and strengthens the service of veterinary practioners and provides the expertise that is not possible within the private means of the livestock industry. The laboratory also monitors all serious animal diseases, and in particular, animal diseases which are readily transmissible to humans, and provides the warning and the means to effect control measures where indicated. It serves veterinarians, livestock producers, agriculturists, and other departments of government.

In 1981, the laboratory handled 8,443 requests for service. A total of 1,083 mammalian and 3,682 avian carcasses were received. Other specimens included 2,902 formalin-fixed specimens; 3,070 blood samples; 10,135 blood serum samples; 1,173 swabs; 4,240 milk samples and various other sundry samples of mixed variety.

A total of 91,964 technical tests were performed in all sections, representing an increase of 3 per cent from 1980 levels. Of these technical tests performed 79 per cent were directly related to livestock food production.

Other activities conducted by the laboratory included:

- Western Equine Encephilities virus surveillance in cooperation with the Department of Health.
- Micronutrient investigations - Preliminary surveys of forage in cattle-raising areas were carried out to investigate the selenium, copper and molybdenum status in geographical areas not previously surveyed. This was concentrated mainly in the Interlake region.
- The Bovine Mastitis program in cooperation with the Dairy Section of the Animal Industry Branch. The program aids veterinary practitioners in solving mastitis problems in provincial dairy herds.
- Routine serotyping of *E. coli* from cases of diarrhea to aid veterinarians and livestock owners in controlling this devastating disease in neonatal calves and piglets.
- Serology services to producers submitting hogs to the Brandon ROP station.

Diagnostic and advisory services were provided for the poultry industry. Serological testing to verify the efficacy of vaccines in broiler-breeder flocks was instituted in 1981. Support services were provided for the Animal Industry Branch and their hatchery monitoring program, and a significant amount of work on Salmonella culturing of litter samples from poultry premises was carried out.

The severe epizootic of Western Equine Encephalitis in 1981 in both horses and humans prompted a major contribution in staff time.

TABLE 10

1981 Summary of Technical Operations

Total Accessions Received	— 8443
Accessions Supervised (includes 1004 avian cases)	— 6610
Accessions Unsupervised	— 1833

Accessions By Type

	Food Animal	Non-food	Total
Mammalian Carcasses	676 (62%)	407 (38%)	1083
Histopathology — fixed tissues	1964 (68%)	938 (32%)	2902
Blood Samples (44 Avian)	1750 (57%)	1320 (43%)	3070
Avian Carcasses	3566 (97%)	116 (3%)	3682
Blood Slides & Smears	973 (63%)	574 (37%)	1547
Avian Blood Serum	4897 (99%)	28 (1%)	4925
Blood Serum — Other	3640 (70%)	1570 (30%)	5210
Urine Samples	41 (12%)	289 (88%)	330
Other Fluids	133 (65%)	72 (35%)	205
Swabs	584 (50%)	589 (50%)	1173
Culture Plates	224 (93%)	18 (7%)	242
Milk Samples	4234 (100%)	6 ( )	4240
Feed	149 (94%)	9 (6%)	158
Fresh Semen	264 (99%)	3 (1%)	267
Frozen Semen	27 (100%)		27
Eggs	2752 (100%)		2752
Litter	540 (100%)	1	541
Feces	429 (51%)	419 (49%)	848
Parasites	27 (53%)	24 (47%)	51
Water	34 (100%)		34
	26904 (81%)	6383 (19%)	33287

TABLE 11

Individual Test Procedures — 1981/82

	Food Animal	Non-Food	Total
Biochemistry (BCH)	12049 (69%)	5387 (31%)	17436
Hematology (HMT)	3399 (69%)	1560 (31%)	4959
Histology (HST)	7367 (69%)	3383 (31%)	10750
Bacteriology (BCT)	22337 (85%)	4096 (15%)	26433
Mycology (MCO)	661 (69%)	297 (31%)	958
Radiography (PRC 18,20)	166 (45%)	203 (55%)	369
Trim Tissues (PRP 12)	6092 (69%)	2684 (31%)	8776
Retrim Tissues (PRP 16)	93 (49%)	97 (51%)	190
Decalcifying (PRP 18,20)	55 (60%)	37 (40%)	92
Parasitology (PST)	745 (78%)	215 (22%)	960
Serology (SRL)	9121 (98%)	181 (2%)	9302
Virology (VRL)	10851 (93%)	764 (7%)	11615
Toxicology (TXL)	96 (77%)	28 (23%)	124
	73,032 (79%)	18,932 (21%)	91,964

Crops Management and Marketing

Plentiful supplies of moisture during the fall of 1980 replenished badly needed sub surface moisture. The light snow cover provided very little spring run off consequently farmers were able to begin spring work earlier than normal. Seeding progressed satisfactorily and emergence was excellent. Dry conditions in July prevented good seed development and yields were reduced due to light kernel weight, particularly of barley.

Fall precipitation delayed harvest in some areas, but generally all crops were harvested by freeze-up in late October. A light snow cover during the winter and extremely cold temperatures in January and February may affect the survival of fall seeded crops.

Cereals

Wheat

Wheat was planted on 1,497,000 ha (3,700,000 acres) in Manitoba in 1981. This was an increase of 222,000 ha (550,000 acres) over 1980. Production was estimated at 3,184,000 tonnes (117 million bushels) an increase of 2,000 tonnes (49.8 million bushels) over 1980.

Neepawa continued to be the most popular variety being planted on 48 per cent of the seeded area. There was an increase of 20,000 ha in the area planted to durum wheat. Production estimated at 163,000 tonnes (6 million bushels) was an increase of 55 per cent over last year. Coulter was the most popular variety being planted on 46 per cent of the durum area.

Oats

Oats was planted on 163,000 ha (650,000 acres). Production estimated at 291,000 tonnes (33 million bushels) is an increase of 83 per cent over last year.

Harmon remained the most popular variety, claiming 52 per cent of the oats area. The new variety Fidler, because of its leaf rust resistance should gain in popularity.

Barley

In 1981, barley was planted on 931,000 ha (2.3 million acres) in Manitoba. This was an increase of 122,000 ha (300,000 acres) over 1980. The considerable increase in average yield boosted production to 2,330,000 tonnes (107 million bushels) an increase of 67 per cent over 1980.

Bonanza continued to be the most popular variety and was planted on 40 per cent of the area.

Rye

The area planted to spring and fall rye was estimated at 96,800 ha (240,000 acres), an increase of 62 per cent over last year. Production of 225,800 tonnes (8.8 million bushels) is also a considerable increase over last year.

Cougar, planted on 57 per cent of the area, was the most popular variety.

Oilseeds

Flax

Flax was planted on an estimated 283,000 ha (700,000 acres) in 1981. Production at 269,000 tonnes (10.6 million bushels) was an increase of 8 per cent over 1980.

Dufferin, the most popular variety, was seeded on 50 per cent of the flax area. The new variety McGregor was increased by SeCan members in 1981.

Marketing

The department's representation on the Board of Directors of Flax Growers Western resulted in a continuing contribution to the promotion and development of markets for flax through this organization.

Canola (Rapeseed)

Planting in 1981 was estimated at 263,000 ha (650,000 acres), a reduction from 1980 of 19 per cent. The Argentine type was planted on 83 per cent of the area with Regent as the most popular variety. An estimated 91 per cent of the entire crop was planted to canola type (low erucic acid and low glucosinolate). Quality of the crop was generally superior to that harvested in 1980.

Marketing

The department actively supported the market development of canola seed and oil, through participation in The Canola Council of Canada. Support has been actively engaged in Mexico, Venezuela, U.S.A. and Japan, through technical seminars, feed trials and incoming and outgoing missions. Emphasis has been placed on meal and oil development work in the Caribbean countries, through feed trial demonstrations and food cooking demonstrations. This area represents excellent potential for future sales of oil and meal.

Sunflowers

Sunflowers were planted on an estimated 117,000 ha (289,000 acres), a reduction of 10 per cent from 1980. Manitoba's production accounted for 96 per cent of the total Canadian sunflower production.

An estimated 95 per cent of Manitoba's sunflower plantings were established with varieties of the hybrid type.

Special Crops

Corn

Grain corn plantings reached an all-time high of 105,000 ha (260,000 acres) in 1981. This represented an increase of 86 per cent over 1980 plantings. Production was estimated at 495,000 tonnes (19.5 million bushels). Markets included the Manitoba distilling industry, the feed trade and export to other provinces.

Other Crops

Buckwheat, field peas, silage corn, mustard, lentils, canary seed, fababeans, white and colored beans and sugar beets were grown in a substantial area in Manitoba - mostly under contract. These crops generate an increasingly large amount of cash flow to farmers.

Marketing

Manitoba continues to be the dominant supplier of buckwheat to Japan, but for the third consecutive year, production and delivery problems have caused some difficulty in maintaining this market. Manitoba Agriculture continues to support exporting companies and provides liaison with government and buyers in Japan.

Peas, beans and lentils are being exported in growing numbers to the Caribbean countries of Venezuela, Columbia and likely Cuba. The Marketing Branch has been active in the promotion of these commodities for over 9 years and last year several sales missions travelled to these countries for marketing arrangements. Most exporting companies are now familiar with these markets, but for new companies, the Branch provided assistance to acquire sales agents and familiarity with these markets.

TABLE 12

Summary — Major Special Crops — 1981

Crop	Hectares	Yield per Hectare	Price	Value of Production	Value per Hectare 1980	Value per Hectare 1981
Canola	263 000	1.295 t	$270.80/t	$92,230,400	$269.50	$350.68
Sunflowers	117 000	1458 kg	22.3¢/kg	38,040,678	294.00	325.13
Grain Corn	105 000	4.7 t	107.00/t	52,804,500	538.40	502.90
Buckwheat	40 500	915 kg	37.8¢/kg	14,007,735	100.76	345.87
Field Peas	36 000	1945 kg	25.0¢/kg	17,505,000	331.20	486.25
Mustard	16 600	927 kg	38.5¢/kg	5,924,540	260.40	356.90
Lentils	12 100	870 kg	50.6¢/kg	5,326,660	300.90	440.22
Canaryseed	12 900	840 kg	44.0¢/kg	4,767,840	203.28	369.60
Sugar Beets	11 250	30.2 t	$55.70/t	18,924,100	1185.00	1682.14

Crop	Acres	Yield per Acre	Price	Value of Production	Value per Acre 1980	Value per Acre 1981
Canola	650,000	23.1 bu	6.14/bu	$92,230,400	$109.10	$141.83
Sunflower	289,000	1,300 lb	10.1¢/lb	38,040,678	119.03	131.30
Grain Corn	260,000	75 bu	$2.71/bu	52,804,500	217.98	203.25
Buckwheat	100,000	17 bu	$8.24/bu	14,007,735	40.80	140.08
Field Peas	88,900	28.9 bu	6.82/bu	17,505,000	134.10	197.10
Mustard	41,000	827 lb	17.5 ¢/lb	5,924,540	105.42	144.72
Lentils	30,000	775 lb	23 ¢/lb	5,326,660	121.82	178.25
Canaryseed	32,000	750 lb	19.8 ¢/lb	4,767,840	82.30	148.50
Sugar Beets	27,780	13.2 ton	$51.60/ton	18,924,100	479.75	681.12

New Crop Investigations and Development

The evaluation of new crops that have potential in Manitoba is an important phase of special crop work. Crops such as lupins have potential for production and a ready market but production parameters for Manitoba farmers must be developed. Several regions report an increasing interest in winter wheat.

An Agro Man project, which is cost shared between the Manitoba Government and the Government of Canada, is aimed at assessing the value of new soybean varieties in Manitoba and providing farmers with the necessary production techniques. Evaluation of crops such as Lathyrus, Garbanza (chick peas) and various types of beans for production in Manitoba is an on-going activity. Other Agro-Man projects included corn trials and field crop variety trials.

Seed Production

Approximately 117,728 ha (290,788 acres) were planted in Manitoba for pedigreed seed production. This represents an increase of 22,631 ha (55,899 acres) over 1980.

TABLE 13

Major Crop Kinds Planted for Seed Production (Manitoba)

	1980		1981	
	Hectares	Acres	Hectares	Acres
Wheat	32 808	81,036	42 833	105,798
Oats	2 080	5,138	3 281	8,104
Barley	18 670	46,115	22 358	55,224
Flax	11 996	29,630	12 809	31,638
Rape	3 432	8,477	2 295	5,669
Other	26 111	64,494	34 152	84,355
Total	95 097	234,890	117 728	290,788

Facilities and Equipment

Field days and farm meetings were held on soybean harvesting, and harvesting and drying of pulse crops and other special crops. An increased interest in growing of special crops has led to a need for more information on how to harvest and dry them without excessive losses.

Grain drying and handling systems continue to be of major interest to Manitoba farmers. Considerable new information was obtained on natural air drying systems both from field tests and lab tests. Performance characteristics of 46 aeration fans were published, and design procedures and data for aeration systems were refined and improved. Many public meetings were held to transmit the new information to the end users. A computer program to assist with design and selection of components was developed. Two heated air grain dryers were tested in the field to determine actual drying rates and fuel efficiencies. Many new grain handling systems were designed for farmers throughout the province. Several layouts for farm scale seed cleaning plants were developed. A Grain Days show was organized together with the Provincial Exhibition in Brandon to exhibit all types of grain handling, storage, drying, cleaning and transporting equipment. A large number of consultations were held with manufacturers and dealers of grain aeration, handling, drying and storage equipment.

Soil Fertility and Management

The overall amount of fertilizer that was applied to the province's cropland in 1981 was similar to that applied in 1980; 517 tonnes (569 tons) were applied in 1981 compared to 548 tonnes (602 tons) in 1980. The 1981 provincial summerfallow acreage was considerably lower than in the preceding five years; 0.61 million hectares (1.5 million acres) in 1981 as compared to an average of 0.87 million hectares (2.1 million acres) for the period 1976 to 1980.

Notable fertilizer and soil fertility factors during the 1981-82 year were as follows:

- The average available soil nitrogen in the spring of 1981 was higher than normal.
- The manufacture of liquid sulphur fertilizer was started at Brandon in the spring of 1981.
- The handling capacity for anhydrous ammonia was expanded throughout the Province. This includes both expanded and distribution facilities at Bloom.
- Fertility topics of particular interest during the year to producers included (i) fertilizer placement; especially pre-plant banding of phosphorus, (ii) differences in fertilizer recommendations from various soil testing laboratories, and (iii) the fertilizer value of legume crops in crop rotations.

Fertilizer Investigations

Manitoba Agriculture established a number of fertilizer investigations and demonstrations. These included:

- Trials to observe the effect of different sulphur sources on yields of annual and forage crops.
- Trials comparing fertilizer recommendations from three different labs were established at seven sites. The first year investigations of an Agro-Man study to further develop the fertilizer technology of special crops in Manitoba was carried out by the Soil Science Department at the University of Manitoba. This study included three sites and the crops were corn, sunflowers, lentils and soybeans.

Extension Activities

Presentations dealing with soil testing, fertilizer placement, fertilizer recommendations, salinity, potassium and sulphur were made at numerous locations throughout the province. A display relating to the Manitoba Soil Testing Laboratory was included in the 1982 Weed Fairs at Brandon and Winnipeg.

Provincial Soil Testing Laboratory

Because of favorable soil sampling conditions in the fall of 1981 and the interest by producers in the nutrient status of their fields, a 15 per cent increase in the number of farm samples was recorded. Some 31,500 samples were received compared to 21,200 the previous year. With an additional 6,600 samples from non-farm sources, the number of samples analyzed totalled 38,100 compared to 28,000 in 1980-81. In addition to soil samples, 1900 plant tissue samples were analyzed.

Insect Infestations

Wireworms

For the first time in many years, wireworms occurred in fairly high numbers in cereals and corn over a wide area of the province in late May and early June. The main species was the Lesser Prairie Grain Wireworm which has not previously been considered a pest in Manitoba.

Grasshoppers

Good growing conditions reduced the impact of grasshoppers on crops in 1981. Egg hatching began around mid-June but crops were well established and little economic damage occurred.

Surveys carried out in the fall of 1981 by Agriculture Canada indicate the forecast area of infestation for 1982 will be slightly greater than 1980, but the density of grasshopper populations will be lower.

The main areas of infestation forecast for 1982 are in the Red River Valley and in the central part of the province. They are forecast to include 4094 km^2 (1380 sq. in) of light infestation and 480 km^2 (345 sq. in) moderate.

Cutworms

For the second consecutive year, cutworms were a widespread problem in peas, lentils, sunflowers and other crops. Cutworms began to appear in late May and their activity continued through early July with some fields being damaged severely enough to require reseeding.

Armyworms

After an absence of one year, armyworms occurred in economic numbers. However, unlike previous years when wheat, barley and rye were attacked, infestations were confined primarily to fall rye, timothy and other perennial grass crops.

Bertha armyworms

Bertha armyworms were again present on rapeseed crops in the Northwest region and many crops, particularly in the Swan River area were sprayed. A high incidence of disease developed in larvae populations late in the season which could reduce the potential infestation for 1982.

Sunflower midge

The first damage resulting from sunflower midge infestations in Manitoba was recorded in 1981. Although it has been present in North Dakota for several years it had not been found

in Manitoba sunflowers. Surveys carried out in the Red River Valley revealed that up to 75 per cent of sunflower heads in some fields were infested by midge. Loss of yield attributable to sunflower midge, however, was minimal.

Aphids

Peas and some cereal crops were sprayed for aphids. The level of infestation in cereals did not always warrant control.

Surveys

Field surveys were carried out to determine the extent of potential Armyworm and Bertha armyworm infestations in 1981. Information gathered from the surveys was used to alert farmers in the Eastern and Interlake Regions to Armyworm infestations on cereal crops and to alert rapeseed growers in the Northwest Region about controlling Bertha armyworms.

Sunflowers

After July regular weekly surveys were made of sunflower fields. The insects noted in the sunflowers were low levels of sunflower moth larvae, sunflower midge and the sunflower maggot.

Spruce budworm

Fall eggmass surveys were carried out to forecast 1982 infestation levels. It was concluded that the infestation had dropped off significantly and that spotty light to moderate populations might be expected.

Forest Tent Caterpillars

Assisted Department of Natural Resources personnel in a survey conducted in the Turtle Mountain area. No infestation expected in 1982.

Horticulture

Spring broke early due to above average temperatures during March and April 1981. However, this was followed by below average temperatures in May which delayed initial growth. Low fall temperatures combined with poor snow covering resulted in a significant reduction in small fruit yields. Heavy spring frosts resulted in substantial losses to transplanted spanish onions, cauliflower and cabbage crops. Summer months were hot and dry promoting insects and diseases. Hail caused considerable damage to crops in the area south of Winnipeg. Heavy rainfall with freezing temperatures and snow stalled harvesting operations during October and a substantial acreage of potatoes and root crops were left in the ground to freeze. There was an excellent crop of tree fruit with native fruit experiencing one of its better crops in many years.

Extension information on the latest technology in production and marketing was distributed through a number of activities that included production guides, producer conferences, field tours, seminars, short courses annual technical publications and the mass media. Special courses involved tree pruners and retail pesticide dealers and applicators.

Potatoes

The area planted to potatoes increased from 16,000 ha (39,500 acres) to 16,800 ha (41,500 acres) in 1981. Of the total 79 per cent was contracted for processing. The remainder was for seed and table stock at 7 and 14 per cent respectively.

Gross production was estimated at 312,440 t (6,888,000 cwt.). The export of raw product to North Dakota and Alberta was in excess of 1980 volumes. General quality for processing especially for French Fries was more uniform than in 1980. Hollow heart was a problem for some growers. General rains during latter part of September and early October delayed harvest and an estimated 600 ha (1500 acres) were left in the field.

Vegetables

Production increased slightly in 1981 to 1269 ha (3,121 acres). Increases occurred mainly in cauliflower and broccoli.

Spring frosts resulted in heavy losses to transplant crops of spanish onions, cauliflower and cabbage. Crops in the Winnipeg area were heavily damaged by hail in August. Weather conditions for the early fall harvest was excellent but late rains in September and October stalled the late harvest resulting in loss of crop and quality especially in the carrot and rutabaga crops.

Marketable yields were average to below average. Quality ranged from excellent to poor with fair to good being the norm. Market demand was good with significant movement of product to other provinces.

Fruit

Department assistance was again provided to the Manitoba Strawberry Growers Association and their Annual U-Pick Campaign. New plantings resulted in a 15 per cent expansion in total picking area of strawberries for 1982 to 142 ha (350 acres). Raspberry U-Pick plant-

TABLE 14

Estimated Value of Horticultural Crop Production for 1981

Potatoes	$26,140,000
Commercial Vegetables (fresh)	$ 6,711,000
Fruit	$ 1,650,000
Florist, Nursery Products and Sod	$14,000,000
Miscellaneous	$ 4,200,000
TOTAL	$62,701,000

ings were expanded with 3 - 5 ha (7.4 to 12.3 acres) of new crop available for 1982 harvest.

Winter injury during 1980-81 resulted in a 30-35 per cent reduction in strawberry yields in some areas of the province. Raspberry yields were average. There was a bumper crop of apple and apple crabs throughout the province. An excellent crop of native fruit especially saskatoons was experienced in most areas of the province.

Greenhouse Crops

The industry has remained relatively static due to high production costs. Escalating heat and labor costs are two major concerns of the industry.

The chain stores appear to be commanding a larger retail share of the plant market. Spring bedding plant sales remained good with production developing in rural areas throughout the province. Locally produced potted plants for the Christmas trade were in high demand in spite of the influx of inexpensive out-of-province material.

Ornamentals

Nursery stock production covers 406 ha (1000 acres). On the whole the stock wintered well and growers were able to offer a quality product. The volume of sales was slightly higher than in 1980 and retail prices were up 5 - 7 per cent.

In spite of the decline in new housing starts residential landscape jobs were fairly steady. Early fall freeze-up caused some harvesting problems for nurseries lifting and storing stock for early spring shipments in 1982.

Nursery Sod

Acreage of sod remained steady but a decline in new home and industrial construction resulted in a reduction of sod harvested. Between 813 to 1016 ha (2000 - 2500 acres) were harvested and sold in 1981. Price per m^2 remained steady at 60 - 70 cents. Escalating energy, fertilizer and labor inputs are seriously affecting production.

Investigation and Development Program

Fourteen investigational and development programs were undertaken during the year to determine the economic potential of various horticultural crops and new crop technology. Many of these programs were initiated in co-operation with the University of Manitoba and Agriculture Canada Research Station within the province. Funding for a number of projects was under Federal/Provincial Agro-Man Agreement.

Specific projects included:

- Soil fumigation of soil borne diseases in strawberries
- Slug control in strawberries
- Control of phoma disease of rutabagas
- Timing of spray programs on early blight in potatoes
- High density plantings of strawberries
- Preventative measures for yellowing in strawberry plantings.
- Survey of strawberry costs of production.
- Use of plastic mulch in overwintering strawberries.
- Commercial production of Dwarf Potted Roses Agro-Man Project 20507.
- Trickle irrigation in nursery stock production - Agro-Man 40901.
- Growing of containerized evergreens - Agro-Man 20514.
- Production of Monarda Oil in Manitoba.
- Comparison studies on new technology versus current grower practices in the production of commercial potatoes, emphasized fertilizer placement, fertilizer recommendations from various soil test laboratories, air versus ground spraying of fungicides, irrigation versus dryland yields, storage losses, and development of an automatic boom control for potato harvesters and instorage pilers.

Northern Horticulture

The summer of 1981 saw northern Manitoba experience below average rainfall, above aver-

age hours of sunshine and the setting of 4 maximum temperature records. Crop production suffered significantly from the drought conditions resulting in reduced yields and quality of product where supplementary moisture was not available.

As an encouragement for gardening in the north, rototilling was provided for 127 gardens in 12 locations and hand rototillers were supplied to ten communities. In addition, 32.5 ha (80 acres) were broken up and root raked, and vegetable variety testing was carried out in 7 communities.

Demonstrations included plastic tunnel projects in 8 communities, forage crop demonstrations at two locations and more than 1300 school children winter growing containerized tomatoes in the same 14 communities that carried out outdoor youth gardening programs in the summer. In the same districts, Wabowden, Norway House, Leaf Rapids and Thompson these projects led to a gardening and greenhouse course in the schools.

Manitoba Agriculture provided technical backup for semi-commercial operations in nine locations where the main crops were vegetables, potatoes, forage and strawberries. A horticultural information service was made available to all, and numerous workshops and seminars were coordinated through the Frontier Nutritional Advisors, Community Health Reps., Indian Band Councils, Mennonite Central Committee, northern horticultural societies and garden clubs. In addition, a series of six travelling workshops on "The North Feeding The North" were carried out in cooperation with the Norman Regional Development Corporation.

Facilities and Equipment

The issuing of many new potato contracts resulted in a high level of interest in potato storages. Many of the contracts went to new growers so much assistance on construction and management of storages was required. Remodelling of existing buildings for use as storages also required extra individual help. Field days and public meetings were held on potato harvesting and storage.

Modifications were made to the automatic height control for potato bin pilers, to reduce bruising damage while loading bins. Potato storages were monitored to determine problem areas and growers were advised on how to improve ventilation systems and storage management. The Ag Canada publication "Bulk Potato Storage" was revised with help from Manitoba Agriculture staff.

A dirt separation tank for silverskin onions was designed, constructed and tested. Several carrot and onion storages were designed or modified for vegetable growers.

Marketing

Assistance and support in marketing was provided through the Canadian Fruit and Vegetable Wholesalers Association, Strawberry Growers Association of Manitoba, Manitoba Vegetable Growers Marketing Board, the Federal-Provincial Market Development Council and the Fresh For Flavour Foundation Additional market support was provided through the Food Products Event, the Manitoba Food Products Directory and the provision of point-of-sale material featuring salads, vegetables, potatoes, root crops and other Manitoba products.

Further assistance was provided to the ongoing development work for production and processing of silverskin onions in the Portage la Prairie area. Market development studies were carried out and a commercial company will be in production in the Portage la Prairie area in 1982, with a production target of 2500 barrels of product in the first year valued at about $600,000.

An intensive survey of the market opportunities for Manitoba wild rice was carried out. Ninety-two Canadian embassies were contacted on this. One 1000 pound shipment of rice was made to Germany following the visit of an incoming trade mission to the province. Meetings were held with growers and processors to analyze marketing problems.

Plant Pathology

A diagnostic service program for disease problems in all crops was provided through the Plant Pathology Laboratory, Agriculture Services Complex. Update information for staff in the area of plant pathology was also provided.

A total of 5200 samples were processed through the lab. There were 1800 samples on general crop problems with the remainder coming from the Dutch Elm Disease program. There was a substantial increase in field crop samples especially in cereals over that of 1980. This increase was attributed to the increase in diseases such as seedling blights, aster yellows and root rots which appear to be on the increase on wheat and barley.

Field surveys to determine the type and level of disease infection were carried out on rapeseed (northwest and southwest regions) alfalfa and sugarbeets (cyst nematodes). Twen-

ty-eight cultures were sent to each of the Commonwealth Mycological Institute in England and Biosystematic Laboratory in Ottawa for confirmation on identification.

Elite Seed Potato Farm (Espo Farm)

Espo Farm was established as a joint project between Manitoba Agriculture and Manitoba Seed Potato Growers' Association to ensure a source of disease free seed stocks to be used by growers in producing commercial seed. In 1981 8100 cwt. of Elite III stock were grown for distribution to seed growers. Manitoba Agriculture's financial input is funded through the Agro-Man Agreement. Saskatchewan Department of Agriculture is also a contributor to the program.

Horticultural Answering Service

During the spring and summer season a telephone answering service was provided to assist the public with problems in horticulture. A total of 2500 calls were handled in 1981. Assistance is also provided to 4 rural community groups providing this service on a voluntary basis.

Specific Tariffs

Co-ordination of the implementation and cancellation of specific duty on fresh vegetable products for the Western Tariff Zone (Thunder Bay to West Coast) was carried out on behalf of the Canadian Horticultural Council. Requests were received for placement on 21 products.

Regulatory

The Horticultural Section was responsible for the administration of 3 Provincial Acts.

Manitoba Fruit and Vegetable Sales Act - Regulates the sale of fresh fruit and vegetables sold within the Province.

Manitoba Horticultural Societies Act - Provides for membership and prize list grants to Horticultural Societies and Agriculture Society affiliated groups. Grants in the amount of $18,554.96 were distributed to 44 societies.

Manitoba Plant Pests and Disease Act - In the administration of this act 23 nurseries were inspected and licenced.

Manitoba Dutch Elm Disease Act - In carrying out the surveillance program for Dutch Elm Disease the Department is responsible for providing the diagnostic laboratory services.

Forage and Pasture Management

The Department's Grassland Management Program is designed to demonstrate the benefits of forage management with a maximum use of grass, legumes and annual crops. It is a direct extension method for establishing visible benefits to livestock producers. On-farm demonstration projects are conducted as a second stage of this extension program.

In 1981-82 six major grassland demonstration projects operated within the province. Five of the projects related to beef and one project served both beef and dairy. About 2200 producers have been directly involved in these projects since they started in 1974.

Producers were closely involved in the management and direction of the projects. Manitoba Agriculture absorbs the operating costs, which are minimal since farmers supply the cattle. All projects are administered by regional staff.

Investigational Program

Four new strains of grass for Manitoba conditions were under development, and two meadow fescues, a tall fescue, and an orchardgrass. These strains have been multiplied up from less than 5 grams each of the original stock seed. To date, approximately 18 ha (45 acres) of the Gunton Project, plus several pastures at the regional projects, have been seeded down to these species both by themselves and in combination with alfalfa. It is intended that these pastures will be intensively grazed to establish the value of these new strains under Manitoba conditions. To date, the orchardgrass appears to be significantly more winter hardy than currently recommended varieties in the Province. The tall fescue appears to be very well adapted to late fall grazing and could potentially lengthen our grazing season.

Forage Seed Production

Total production of all forage seeds, including foreign and private varieties, increased from 4,245,000 kg (9,348,000 lbs) in 1980 to 9,110,000 kg (20,084,000 lbs) in 1981. The total farm value increased from $4,895,000 to $6,681,000 in 1981.

There was a small increase in area seeded down to forage crops. Most of the increase in production can be attributed to the much more favorable growing conditions that were experienced in 1981. In total, the 1981 forage seed

crop increased 114 per cent over the 1980 crop. The biggest increases were experienced in alfalfa, sweet clover, timothy, and kentucky bluegrass. Alfalfa and timothy production hit all time highs during 1981.

The prices paid to producers for all crops in 1981 declined significantly in relation to 1980 prices. The price declines were attributable to the large harvest and a slow down in the demand from livestock producers.

TABLE 15

Average Prices for Certified and Common Seed 1981

	Production		Price Per		Farm
	kg (000)	pounds (000)	kg. $	lb. $	Value ($000)
Alfalfa	1,500	3,307	1.43	.65	2,145
Alsike Clover	75	165	.26	.12	20
Birdsfoot Trefoil	225	496	2.76	1.25	621
Bromegrass	100	220	.77	.35	77
Kentucky Bluegrass	110	243	.77	.35	85
Meadow Fescue	200	441	.94	.425	188
Single Cut Red Clover	150	331	.40	.18	60
Sweet Clover	1,750	3,858	.42	.19	735
Timothy	5,000	11,023	.55	.25	2,750
	9,110	20,084			$6,681

Canadian Forage Seed Project

The Canadian Forage Seed Project was established to multiply and distribute Foundation seed of the Canadian public forage varieties. In 1981-82, applications for Foundation seed were down substantially from previous years, but still surpassed the supply. Some 5,473 kg (12,065 lb.) of Foundation Forage Seed was distributed, amounting to 82 per cent of seed distributed in 1980-81.

Agro-Man

Project #301

The Grassland And Forage Production And Handling Demonstrations Project was funded under the Federal-Provincial Value Added Crops Production Agreement. The intent of this project was to improve the production, handling, and utilization of grasses and other forages grown for livestock feed by demonstrating modern grassland livestock management technology. It also investigates and demonstrates economical methods for on-farm storing, protecting, processing and feeding forage. This project is operated by regional staff.

The Project results to date have been very encouraging. A high proportion of Manitoba's livestock producers have been exposed to the numerous and varied demonstrations that have been run under the project with very positive acceptance.

Project #303

The Forage Seed Production And Demonstration Project is also funded under the Federal-Provincial Value Added Crops Production Agreement. A major share of the funds was contracted out to the Manitoba Leafcutter Bee Association for work with alfalfa seed production. The Association has been very successful in establishing excellent investigational and demonstrational trials. In their test plots and demonstration fields, they have been able to maintain production yields at close to 650 kg/ha (600 lbs/acre). Part of the provincial increase in alfalfa production is undoubtedly attributable to the influence of these demonstrations.

Several trials dealing with timothy, birdsfoot trefoil, and kentucky bluegrass seed production were established under this Project. Unfortunately, due to the extreme drought in 1980, the original seedings were lost and they had to be reestablished this year.

Regional Grassland Projects

Southwest Region

The Marco Grassland Project in its fourth grazing season was the region's major forage demonstration. Steers were pastured under a rotational grazing system and standard pasture management procedures were employed. This plan served extremely well in demon-

strating to producers the effectiveness of recommended procedures. For the 1981 season, 243 pounds of beef per acre were produced over the 123 day grazing period. Included in the project this year was a demonstration on the effectiveness of growth promotant implants. Growth promotants were demonstrated in five other projects in the region as well. A reported increase in sales of these materials throughout the region attest to the effectiveness of these demonstrations.

Northwest Region

Three grassland demonstration projects in the region stocked cattle and a similar project stocked sheep. Most of the Ag. Rep. districts conducted one or more on-farm forage projects under the Federal-Provincial Agro-Man program.

Birdsfoot trefoil and high moisture tolerant forages were successfully established at two sites north of Swan River. Extensive and successful sod seeding programs carried out in the Ste Rose district provided another highlight of the 1981 program.

A concerted effort was made to make area farmers fully aware of the demonstrations, trials and results. This was done through tours, open house programs, special publications, mass media and an open invitation for producers to visit demonstrations at any time. In many cases the grassland sites were used to demonstrate recommended livestock management practices as well.

Central Region

Agro-Man forage and grassland improvement associations in the region included; Pembina, Louise and St. Alphonse-Bruxelles. Activities were highly varied and included; sod seeding demonstrations, pasture weed control, rotational grazing trials, gully stabilization projects, forage variety test plots, forage handling and utilization demonstrations, and in one case, the planting of 12,000 trees on eroded hills and slopes. Every effort was made to have district producers fully aware of all demonstrations and their results.

Interlake Region

The 1981 grazing season was the first year of a replacement heifer rearing program at the Interlake Grassland Project Pasture. Eighty yearling heifers from 10 cooperators rotationally grazed 49 ha (120 acres) of tame pasture. Objectives of this project included demonstrated use and management of tame pasture, the importance of sound winter feeding, and how these factors can enable producers to breed heifers to calve at two years of age. Cost of production data for the rearing of replacement heifers was also tabulated.

Four field days were held at the grassland pasture highlighting freeze branding, use of implants, fly and tick control and tame forage management. Other grassland projects in the region demonstrated sod seeding, forage for problem soils, determination of soil fertility levels required for forage production and the use of the drum roller seeder in good forage management.

Eastern Region

The Eastern Grasslands Society had 150 members during 1981 and an additional 150 producers were on a mailing list to receive all general information coming from the project. One hundred head of beef and dairy cattle were consigned to the project by 56 producers. Activities included demonstrations of pasture improvement and management, forage production and management, forage harvesting, storage and feeding. Specific projects involved sod seeding, forages on peat soil, high moisture grain storage, crop residues for feed and use of ammoniation as a high moisture forage preservative to boost protein and digestibility.

The Society co-operated with Manitoba Agriculture in operating the 56 ha (140 acres). Seven Sisters Forage and Grassland demonstration. Activities similar to the Eastern Grassland Society were carried out by the Stuartburn-Piney Agricultural Development Association where they concentrated on drought susceptible land improvement, use of feed grains, on-farm drainage and the Treed Rangeland Improvement Program.

Weed Control

Weed growth on cropland was generally heavy in 1981 but control was usually adequate. Farmers used less than usual fall or spring applied, soil incorporated herbicides and relied heavily on postemergent products. Some problems were encountered in applying the required controls in the short time available for postemergent herbicides, and some spraying was carried out beyond recommended growth stages.

Overall, farmers used 1.7 per cent more 2,4-D and MCPA, and 3.4 per cent more wild oat herbicides in 1981 than the previous year. The use of other specialized herbicides more than doubled between 1980 and 1981. In relation to previous use, only "other herbicides" recovered to the 1979 level. Wild oat herbicides were 25 per cent below, and MPCA and 2,4-D 21 per cent below, the 1979 level.

TABLE 16

1981 Herbicide Use

Herbicide	Amount Used	% Change from 1980
2,4-D (all formulations)	462,600 kg 1,020,000 lb	+3%
MPCA (all formulations)	507,900 kg 1,119,500 lb	+0.5%
"Other" Herbicides	504,300 kg 1,111,700 lb	+104.3%
Wild Oat herbicides	1,856,100 kg 4,586,600 lb	+3.4%

Source: Daciw, Herbicides Used Agriculturally in Western Canada For Weed Control

An infestation of diffuse knapweed was confirmed in a pasture near Morden. Although this infestation appeared to have been present for several years, this was the first confirmed infestation of diffuse knapweed. This weed has the potential to devastate most native pastures in Manitoba if the current infestation is allowed to spread.

Investigations

Several evaluation trials were conducted to support the annual recommendations. Highlights included:

- Broadleaved weeds in cereals - Trials dealt with cleavers, hemp nettle, smartweed, kochia, Russian thistle, Canada thistle, volunteer sunflowers and volunteer buckwheat. Current recommendations were generally confirmed and a few experimental products showed promise. Test results on kochia, cleavers and hemp nettle will be included in fact sheets for 1982.
- Canada thistle in corn - An experimental herbicide gave excellent control of Canada thistle in corn, far superior to current recommendations. Further evaluations will be carried out in 1982.
- Leafy spurge - Comparison of available herbicides continued at Lauder and Holland. Long term control trials were continued, along with evaluation of new products.
- Bladder campion - Evaluation trials were continued to develop control measures. Results with Tordon and Glean were promising. A summary of control results was published in the fact sheet - Bladder Campion - A Persistent Perennial. Trials will continue for another year to confirm results with Glean and to look for alternative controls.
- Red bartsia in alfalfa - Trials were conducted in association with the Agro-Man project. Alternative treatments showed promise and will be re-evaluated in 1982.
- Strawberries - Treflan and Sinbar continued to provide effective weed control in new strawberry plantings. Other products were also evaluated for tolerance on strawberry transplants.

Biological Control

In cooperation with Agriculture Canada and the Cameron-Sifton Weed Control District, a biological release was made to control leafy spurge. Ninety-five adult *Oberea erythrocephala* were released on June 25. The infestation will be monitored over a period of several years.

Effective establishment of the *Ceuthorhynchidius horridius* release in 1980 on nodding thistle remains to be confirmed. The *Rhinocyllus conicus* release continues to expand on nodding thistle with numerous infested seed heads being picked and spread by the Pembina-Manitou Weed Control District.

Surveys

Over 500 fields were surveyed across Manitoba in the third and final year of the Manitoba weed survey. Weed counts were taken in cereal, flax or rapeseed fields by ag reps and their summer assistants in all regions. Results were compiled and analyzed by Agriculture Canada.

The survey found the most troublesome weeds on cropland ranked by farmers were:

1. Green foxtail
2. Wild Oats
3. Wild Buckwheat
4. Smartweed
5. Canada thistle
6. Lamb's quarters
7. Red root pigweed
8. Perennial sow thistle
9. Wild Mustard
10. Quackgrass
11. Russian thistle
12. Night flowering catchfly

Farmers growing Norbert barley were surveyed to determine their experience with tolerance to herbicides. Several reported poor tolerance when Hoe-Grass was applied. A potential problem with dicamba products was also identified, as was a general concern from growers regarding lack of tolerance testing on new varieties.

Corn growers were surveyed to document the extent of the proso millet problem in corn. Information on weed control practices was also compiled. Of the corn area covered by survey responses, 13 per cent was infested with proso millet. Eighty per cent of proso millet was found in continuous corn.

Weed Control Districts

Thirty-seven weed boards operated in 1981, including the two new urban districts at Winkler and Morden. Weed supervisors enforced the Noxious Weeds Act and assisted farmers and homeowners by extending weed control information. They made 4019 farm calls, identified 3698 weeds, calibrated 257 sprayers and carried out 1724 inspections. Manitoba Agriculture provided two one-week schools and a correspondence course training program for weed supervisors.

Weed Fairs

Two-day fairs at Brandon and Winnipeg drew a total attendance of 4500. The Weed Fairs continued to provide one-stop weed information centres for farmers, with information on other pests, fertilizers and related equipment also available. A total of 97 exhibits and 8 presentations resulted from the combined effort of agri-business, the University of Manitoba and Manitoba Agriculture.

Dealer and Applicator Training

Educational programs covering weed control were continued for new dealers and custom applicators. In addition training was provided for dealers and applicators required to requalify for licences. Content of the training programs included using the recommendations, plant growth stages, factors influencing herbicide performance, weed control on right's-of-way, spray drift, herbicide incompatibility, new product registrations and weed identification.

Technical assistance was also provided to dealers and applicators through newsletters and phone calls.

Soil and Land Management

The program objective is to provide basic soil resource information and assist in the department's input into land use planning, particularly as it relates to Manitoba's agricultural land resource.

Soil Survey

The systematic inventory and evaluation of Manitoba soil resources is supported jointly by the Manitoba Department of Agriculture and the Canada Department of Agriculture. The University of Manitoba, through the Department of Soil Science provides office and laboratory space and administrative services related to special projects. The major function of the soil survey continues to be provision of essential soil resource data and related research and land evaluations required by provincial government departments.

The main emphasis of the 1981-82 inventory program focused on the detailed resurvey and land evaluation of selected areas in southern Manitoba. These resurveys at 1:20,000 scale provide detailed soil resource information to assist in the planning, allocation, and management of land resources for agriculture, rural residential planning and intensive outdoor recreational uses.

Approximately 65,000 ha were surveyed at a scale of 1:20,000 in 6 selected areas of southern Manitoba. These projects included irrigation and planning studies at Portage la Prairie, agricultural studies near Miami and Jordan, Municipal Planning and recreation studies at Bottle Lake, Flin Flon, Pine Creek, and City of Brandon. An additional 65,000 ha were resurveyed at a scale of 1:40,000 in the Giroux-Ste. Anne area of south-eastern Manitoba for organic soils and along the South Central Escarpment to provide data for more intensive agricultural use and in the Spruce Woods Provincial Park for the Parks Branch.

Interim reports and maps were prepared for all 1981 projects. In addition, the final report was released for the Ste. Rose du Lac area and interim reports were released for the Hadashville, Matlock-Gimli-Riverton, Dauphin, and West Interlake Planning District areas.

TABLE 17

Status of the Soil Inventory in Manitoba

	Total Area Covered			
	1981-82		To date March 31, 1982	
	Hectares	Acres	Hectares	Acres
Initial reconnaissance	—	—	18,747,200	46,325,600
Initial detailed survey	—	—	99,300	245,200
Reconnaissance resurvey	65,700	162,300	549,700	1,357,800
Detailed resurvey	65,600	162,000	1,117,400	2,760,060
Biophysical survey	—	—	11,389,600	28,132,300

Land evaluation studies, primarily in agriculture continued. The soil survey is involved in developing a data base for land evaluation through the ongoing program of detailed resurveys and through long term monitoring programs of soil temperature, soil moisture and climate relations. Soil survey data provides input for the development of various soil-climate based crop growth and yield models for quantitative agricultural land evaluation.

Land Use Planning

Branch staff and regional Land Resource Specialists represented agricultural interests in subdivision and land use issues relating to the Planning Act and Provincial Land Use Policies. Assistance and advice was given to planning districts and municipalities in formulation of basic planning statements and development plans.

Investigation and consultation was provided in the areas of organic soil management, northern agriculture development, crown lands, Hydro right-of-ways and sewage sludge disposal.

Zero Tillage

Farmers used zero tillage production practices on 10,000 ha (24,710 acres) in 1981, an increase of 15 per cent from 1980, and a seven fold increase since 1977.

Eighty-eight per cent of zero tillage was carried out in the Northwest and Southwest regions. The main crops were spring wheat, barley, rapeseed, flax and winter wheat. Other crops included oats, fall rye, mixed grains, lentils and sunflowers.

Weed problems were evident in some fields, most noticeably in fields where recommendations had not been followed. Farmer concerns continued over proper fertilizer placement and lack of commercial availability of a drill which will give a combination of proper seed and fertilizer placement, with minimal soil disturbance. In the short run, the most applicable benefits of zero tillage appear to be reduced soil erosion and the increased potential for winter wheat production.

Irrigation

Central Region staff, the soil testing laboratory and the provincial water laboratory, assisted farmers in the development of an appropriate irrigation program for their soil and water resources. Rebates totalling $72,558.83 were paid to 40 farmers under the Agri-Water program, for the installation of new irrigation systems. An estimated additional 1360 ha (3400 ac) were brought under irrigation this year bringing the total irrigated area in Manitoba to about 10,160 ha (25,400 acres).

On-Farm Drainage

Surveys and ditch plans for 29 quarter sections were provided to farmers where there was adequate waterways to receive the increased drainage.Investigitions were conducted on the use of laser levels, for surveying, computerized drafting of plans and drainage, and water management options.

Agricultural Crown Lands

Land Use

Agricultural Crown Lands utilize 0.79 million ha (1.96 million acres) for livestock grazing, hay production and annual cropping. The Crown Land Classification Committee (CLCC) has been very active in processing land for the Crown Land Sale Program and the Local Government District Land Exchange Program. The CLCC introduced a new set of land use Codes and an Administrative Manual for the 1981 season.

Sale of Agricultural Crown Lands Under Lease

The provinces sale policy gives the leaseholder the option of purchasing the Crown Lands held under lease in 1977, or earlier. The Agricultural Crown Lands Branch of Agriculture worked with the Crown Lands Branch of the Department of Natural Resources in processing the land sales.

TABLE 18

Summary of Land Sales Activity

	1980	1981
No. of Applications to Purchase Forms Mailed	308	228
No. of Applicaions with Required Fee Received	510	362
No. of Applications Approved by Depts.	467	398
No. of Applications Rejected by Depts.	159	110
No. Submitted to Cabinet for Approval	337	128
No. Approved by Cabinet	321	163
No. Offered for Sale	269	316
No. Offers to Purchase Received	145	242

Local Government District Land

A Local Government District Task Force negotiates with each Local Government District Council relative to the return, exchange or sale of local government district vested lands. Administrative agreements were also prepared to enable Manitoba Agriculture to administer certain LGD lands. All the districts have entered in the Agreement with the Province. In 1981 477 quarters were transferred directly to the local government districts and 87 quarters were transferred to purchasers. Under the Exchange Program, 47 Crown quarters were transferred to the local government districts and 71 local government district quarters were acquired by the Province.

Leasing and Permitting

The total number of Forage Lease dispositions increased by three in 1981 and the total acreage under Forage Lease increased by 1,158.6 ha (2,863 acres). There was a small increase in the number of in-family transfers. In 1980, 48 Forage Leases involving 236 quarters were transferred, whereas there were 62 Forage Leases involving 312 quarters transferred in 1981. Also, there were 12 Unit Transfers processed in 1981. Surrenders included 120 Forage Leases involving 293 quarters. Eighteen Forage Leases involving 44 quarters were cancelled for non-payment of rent and nine Forage Leases involving 29 quarters were cancelled for non-use.

The purchase of improvements in the calendar year 1981 were $19,324.02.

Leases and Permits 1981:

Type	Number	Hectare	Acre
Forage Lease	2,637	622,582	1,538,380
Casual Grazing Permit	302	13,913	34,378
Renewable Hay Permit	1,280	69,745	172,338
Casual Hay Permitt	792	42,765	105,670
Cash Rental Agricultural Lease	275	32,337	79,904
Lease Option	15	1,829	4,519
Totals	5,301	783,171	1,935,189

Advertisement and Allocation

During the year, 1,058 quarters were advertised for lease or permit. Of these, 355 quarters received one application only, and 224 quarters received no response. Multiple applications were received on 415 quarters and 64 quarters were withdrawn from allocation.

Agricultural Crown Lands Advisory Committee

Seventy-three appeals involving 114 quarters were heard during 1981. The appeal hearings resulted in 67 (58.8%) of the allocated quarters being upheld and 47 (41.2%) of the allocated quarters were changed. There were three

appeals heard by the Committee regarding unit transfer requests which the Branch denied. The Committee agreed with the Branch that the unit transfers should be denied.

Carrying Capacity of Grazing or Hay Lands

All lands held under Forage Lease were inspected for the purpose of setting the carrying capacity. In addition, lands held under hay permits are being inspected for the purpose of setting carrying capacities on these lands.

Crown Land Improvement Program

Ideal weather conditions for clearing resulted in a high demand for services under this program. In 1981, this program was made available to 129 new clients on 242 quarter sections, totalling $353,895; and 861 clients were carried over from previous years on 1,825 quarters for a total of $342,521. In 1981, there were 3,267 ha (8,073 acres) cleared; 3,562 ha (8,801 acres) were broken, and 5,019 ha (12,403 acres) were prepared for seeding.

This year a total of 1,553 ha (3,837 acres) were sprayed for $38,370.00.

Community Pastures (P.F.R.A. Administered)

There were 24 community pastures covering 177,475 ha (438,541 acres) in Manitoba. One emergency pasture was maintained from the 1980 drought (Libau) due to the severe winter kill of legumes plus field renovation. In total, operating community pastures carried 60,006 head of livestock over the grazing season. Patrons are charged a user fee to recover the annual operating cost of the pastures. Rates for 1981 were increased.

TABLE 19

Community Pasture Statistics

Operating pastures	24
Hectares	177,475
(Acres)	(438,341)
Carrying Capacity	42,200
Patrons	1,172
Adult cattle	37,884
Calves	19,232
Horses	435
Breeding Cows	19,883
Losses	488
Overall percentage loss	0.59
Bulls (includes rental)	731

Co-operative Pastures

The Shoal Lake Hay and Grazing Co-op Ltd. comprising of 1,722 ha (4,255acres) and the Ralph Connor Grazing Co-operative which has 1,919 ha (4,742 acres) are the only co-operatives in the Province. Both pastures are located in the Interlake Region.

Grassland Demonstration Projects

The Canada-Manitoba Subsidiary Agreement on Value Added Crops Production (Agro-Man) charges the Agricultural Crown Lands Branch with the responsibility of the financial administration of the Tree Covered Rangeland Improvement Project. Interest rebate assistance is provided to farmers who borrow money to develop their privately owned tree covered rangelands through the land development stages of clearing, breaking and seed bed preparation, which is usually a two year period. In 1981 some 151 clients improved 2,161 ha (5,340 acres) and were granted $74,298.77 in interest rebates.

Training and Development

Farm Management

Farm management activity supports improved efficiency and growth on the farm through the provision of farm management services and by extending information to staff and to farmers. Technical information was supplied through bulletins, fact sheets, information updates, discussion papers, training aids, computer aids and meetings and seminars, plus other direct contacts with farmers. In many cases regional farm management services were provided as a direct response to farmers requesting financial and management assistance.

Further improvements were made to the new account book with arrangements completed to have this book distributed on a national scale. In the homestudy area staff provided one lesson for Pork Production '82 and completed initial plans for Farm Management '83.

Extension and Development

Demand for regional farm management services were greatly increased during the year because of farmer concerns over high interest rates and the continuing pressure from the cost-price squeeze. The introduction of the Interest Rate Relief Program also added to the demand.

Individual farmer counselling by farm management specialist and agricultural representatives, on matters of farm financing and management, were already at a high level before the Interest Rate Relief Program was instituted late in the year. However, this new program caused a sizeable surge in this demand resulting in hundreds of detailed farm business analyses carried out in each region. It is expected that a similar demand for these services will continue, because of the positive record established by staff in such counselling.

Farm business clubs expanded considerably during the year. The Central Region went from two to seven, the Southwest Region formed four and had three others underway, and all other regions had some expanded development in this area.

The Computerized Production Planning System (CPPS) was introduced and tested as to its potential as a tool in extension. All regions had terminals and all report an encouraging response to this new aid to management extension. As part of the CPPS development six existing computer systems were accessed. Committees were established to evaluate existing farm related programs and report on their potential usefulness under Manitoba conditions. Six terminals and one micro computer were in use during the year. Extensive use was made of programs involving crop budgets, markets, buyland, car costs, loan costs, cash flow planning, machinery selection and partial budgeting models. Computers were also used for developing background information for extension bulletins, research literature and assisting in the design of farm buildings.

Two computer models were developed by department staff; combine ownership vs custom operations and car cost analysis. An evaluation report on CPPS was developed, including recommendations for the further development of this service.

Staff training in farm management continued to be emphasized through the year. This was accomplished through in-service training sessions carried out at three levels of competency and by provision of regularly updated material for staff.

Information updates were produced on costs of production on crops, special crops, dairy, hogs, cow-calf and feeder cattle operations. Additional cost data was prepared for general use on raising dairy replacement heifers, soybeans, strawberries, corn, potatoes and vegetable crops. Historical costs of production were also compiled and summarized for the 1970-1980 period on cereal and special crops, hogs and dairy.

The Consumers research data approach was promoted by regional staff in developing and training farmers to calculate their own costs of production. Regional staff were also instrumental in developing and establishing an advance payment plan for grain corn.

Liaison was maintained and information shared with agri-business, banks, credit unions, other financial institutions and university researchers.

Agro-Man

Farm management staff participated in and assisted many of the Agro-Man projects including:

- Assessment of Farm Impacts and Potential for Value-added Crops Production
- Study of Economics of Irrigation and Crop Production
- The Economics of Growing Corn
- The Economics of Growing Soybeans
- Irrigation Technology Investigation and Demonstration
- Investigation and Demonstration of Irrigation Technology Using Effluent

4-H and Youth

The objective of the 4-H program is to encourage and promote leadership development (skills, attitudes, knowledge) of youth in rural and northern Manitoba.

The Winnipeg 4-H Office is responsible for support to the regional 4-H staff and to the Manitoba 4-H Council for provincial programs and for the direct supervision of the northern 4-H program.

The Manitoba 4-H Council, composed of six 4-H leaders, six 4-H members, and two government representatives provides guidance on policy for 4-H in Manitoba. Goals of the Council were:

- to enhance volunteer participation and learning at all program levels,
- to enhance participation and support of corporate volunteers,
- to maintain and strengthen national and international 4-H relationships.

Manitoba 4-H Council

Committees of Council, composed of volunteers and regional and central 4-H staff, planned and implemented all provincial programs. Volunteer leaders acted in resource roles on 4-H trips and conferences.

One committee of Council, the Manitoba 4-H Light Horse and Pony Club Association, in cooperation with the Manitoba Horse Council and the Provincial Exhibition Board, staged the third Annual Provincial 4-H Horse Show.

The Travel Committee arranged for 113 members and 47 leaders and two 4-H Ambassadors to participate in conferences on a provincial, national and international basis.

The Public Relations Committee carried out an extensive program to promote 4-H, enhance the 4-H image, and increase membership and participation. Activities included the National 4-H Week, development and provision of promotional materials (buttons, posters, press kits, and 4-H folders) with the slogan "4-H is More ....". Strong emphasis was placed on having local 4-H clubs planning and conducting this publicity campaign as part of their 4-H activities. Evaluations showed a strong response to the campaign. A new slogan for 1982/83 "Grow with 4-H" was chosen from a provincial competition.

The Sponsorship Committee was able to maintain the level of corporate and association sponsorship, receiving a total of $9,250. A new project was sponsored, the Community Services Project, which generated much interest.

The Manitoba 4-H Ambassadors were very much involved in rallies, fairs, public speaking competitions, workshops and regional conferences. They organized, with financial and staff support of the Kiwanis Club of Winnipeg, the Provincial Public Speaking Competition. A number of workshops were held at their September Retreat. Members attended the North Dakota 4-H Youth Conference and the North Central Leaders Forum in Mitchell, South Dakota.

A major activity was the Leadership Development Course put together by another committee of Council. A new Leaders' Manual was developed and printed and an extensive series of workshops were held across the Province. Over 300 leaders participated and completed most of the course.

The Annual 4-H Conference was successful in informing and involving the membership and staff. Over 100 leaders, members and staff attended. Guests were from Alberta, Saskatchewan, New Brunswick, Ontario, Nova Scotia, P.E.I., North Dakota and Minnesota.

Over 400 members and 100 leaders participated in 21 provincial, national and international 4-H events. In addition, over 100 members and leaders travelled on the Open House Canada Program. The Canadian 4-H Council coordinated twinning and travel arrangements. All of the travel opportunities and a portion of the provincial conferences were funded by donations from 4-H Clubs and corporate sponsors.

4-H Projects

The Department supplies project manuals and record books to a project enrollment of 6,915. Individual membership dropped slightly to 5,925 members in 312 clubs. The number of volunteer leaders decreased slightly to 2,139.

New materials provided this year were:

- On Your Own — new manual
- Crafts - Units I & II (Needlework Plus - resource)
- Woodworking - Unit II
- Dog - New manuals
- Beef - new lesson materials and new teaching techniques
- Livestock - new Judging Manual and slide set
- Foods - new leaders guide
- Leadership - new handbook
- Clothing — Unit III in draft version (new resource books)

Four issues (9,000 copies/issue) of the provincial 4-H magazine, CONTACT, were printed and distributed. Award winners were selected for the Canadian National Exhibition 4-H Scholarship, and the Hoechst Canada Scholarship. Excellent working relationships were maintained with the Home Economics Directorate and other branches of the Department.

During the Year 236 4-H Leadership Certificates were presented, including one for 35 years of 4-H involvement.

Staff Training

Staff training and support was provided mainly through the full participation of all 4-H staff in the provincial group activities. Five staff meetings were held. Five staff attended the Western Provinces 4-H Staff Seminar in Alberta, one member attended the North Central 4-H Leaders Forum in Mitchell, S.D., another attended the Annual Meeting of the 4-H Extension Agents in Florida, and one member attended the Winter Extension School in Arizona. The provincial 4-H specialist attended two meetings of the rural Home Economists and a Home Economics Workshop.

Regional 4-H Activity

All regions carried out an extensive and comprehensive program at district levels. Activities were varied and wide-ranging, including sporting events, camps, rallies, member training, leader training and project work. While there was a small decrease in membership in several regions all reported an increasing involvement from leaders.

Leadership development was one of the major thrusts in the Southwest Region. Leader training workshops were held on a number of topics. Staff training was also emphasized and new training materials were introduced on a number of projects. Eighty three clubs were active during the year with a total membership of 1582, while leaders numbered 593.

In the Northwest Region district councils operating in each district planned and carried out inter-club programs to support local activities. Three rallies, five bonspiels, three officer workshops, one skate-a-thon and a varied program of activities associated with "4-H Week" were carried out. Public speaking continued to be well supported in all districts. The Regional 4-H Council planned a number of regional activities including a 4-H Leaders Live-in Conference, a Junior Conference for 13 and 14 year olds, a regional horse show, a week of camp for 59 members and the Council hosted the "Know Manitoba Better tour". Other activities that involved many of the 1,095 members in 52 clubs were regular 4-H radio broadcasts and a series of 4-H television featurettes.

The Central Region had 1588 active members in 88 clubs with 578 leaders involved. District councils continued to operate in all ten agricultural districts to plan and sponsor a wide range of district activities. In addition, a 4-H Regional Council supported and coordinated regional projects, while the Regional 4-H Horse Leaders Council functioned on behalf of the horse clubs. Eight rallies were held in the region, members attended camp at Caddy Lake and Camp Wannakumbac, and training sessions were held for program assistants, leader management, livestock judging and a series of 4-H project workshops. Communications continued to be a prime focus of the regional 4-H program with active participation in public speaking, communication project competitions and the production of articles for "4-H Contact".

The Young Farmers Club at Altona continued its support to agricultural activities in the district. They had an exchange program with the Ontario Junior Farmers and continued to actively support the Altona Farm Management Association, the Rhineland Agricultural Society and the Altona Community Centre Project.

The 4-H program in the Interlake Region continued to be supported by a regional council, six district councils and a Regional Horse Leaders Association. The year's program in the region included three rallies, district, interdistrict and regional public speaking contests, 43 achievement programs, a Junior Members Conference, a Senior Members Conference, and three one-week summer camps. In addition, members took part in workshops on meeting management, public speaking, demonstrations and specific project activities. The horse council sponsored a successful regional benefit horse show. District level activities included 4-H promotion in schools, 4-H week promotion, 4-H family nights, picnics, bonspiels, pot luck suppers and a range of fund raising events. The Interlake program involved 664 members in 41 clubs, with the assistance of 261 leaders.

Some 735 4-H club members in 36 clubs with 212 leaders shared the program in the Eastern Region. District councils functioned in a planning and co-ordinating role in all agricultural districts, and all provided leadership training sessions. Communications were highlighted with public speaking contests in all districts, a creative writing contest and a regional 4-H photography competition. Other activities included two rallies, a regional horse show, an educational tour for the 9 to 11 year olds, a conference for the 12 to 14 year olds and three

TABLE 20

MANITOBA 4-H STATISTICS

PROJECT	1980	1981
Group Determined	159	158
Babysitting	82	132
Adopt-A-Grandparent	71	62
Automotive — Mechanics	207	208
Beef Calf	1211	1136
Dairy Calf	95	120
Garden — Horticulture	116	107
Junior Leader	120	93
Light Horse and Pony	740	761
Seed — Field Crops now Cereal Crops	36	14
Conservation — Outdoor Living	260	206
Special Vegetable or Fruit	—	—
Sugar Beets	78	68
Swine	31	35
Woodworking	487	436
Photography	156	170
Hunter Safety now Outdoor Living	—	—
Dog Care and Training	21	17
Power Toboggan	21	14
Welding now Mechanics	—	—
Self Determined	111	119
Home Nursing	40	32
Electrical	14	19
Home Away From Home now On Your Own	23	59
Clothing	1183	1047
Foods	800	809
Home Design	121	93
Handicrafts	1016	892
Potato	—	—
Leathercrafts	29	45
Other	52	63
TOTAL PROJECT ENROLLMENT	7282	6915
No. of Male Members	2170	2055
No. of Female Members	4070	3870
Total Number of Members	6240	5925
Number of Clubs	324	312
Number of Leaders	2166	2139
Number of New Leaders	690	676
Number of New Members	2229	1891
Average Age	12.2	12.1
Average Tenure	2.9	2.9

week-long camps at Caddy Lake. 4-H promotion was carried on throughout the region by 4-H week displays, regular radio and newspaper items and the production and distribution of a new promotional pamphlet on the regional 4-H program.

Norther 4-H

This program experienced considerable staffing difficulties with vacancies of several months at The Pas and Thompson. The cooperative program delivery arrangements with the Department of Community Services and Corrections was effective in maintaining program continuity. The objectives of the program were:

- to support and develop a 4-H program in northern communities by providing information to leaders and members of clubs through workshops, and individual contacts, on projects and leadership skills for personal growth and community development.

- to develop programs for remote communities dealing with nutrition, money management and horticulture.

Clubs were active in The Pas, Thompson, Leaf Rapids, Easterville, Flin Flon, Grand Rapids, Shamattawa and Moose Lake. The north was represented on the Manitoba 4-H Council by a member from Thompson, and a leader from The Pas. Gardening continued to be a successful summer activity and helped in recruiting members. Most clubs carried out some activity for Manitoba 4-H Week. Members attended the Regional and Provincial Public Speaking Competition; the Central Region Members Conference, Livestock Judging Competition, Public Relations Conference, and other provincial activities. A northern club newsletter was developed, and articles on 4-H were carried in The Pas and Thompson newspapers. Membership and participation increased over the year, indicating further potential for the program.

Rural and Northern Home Economics Services

Home Economics services are delivered in rural and northern Manitoba by home economists with Manitoba Agriculture and the Department of Community Services and Corrections. Their work is supported and integrated with the activities of the Home Economics Directorate of the Department of Health.

Planning to meet community needs has been the keynote of rural home economics extension services. Measurable objectives established by the home economists in conjunction with Directorate staff have been utilized in the evaluation of new and on going program thrusts, both regionally and provincially.

Seminars for rural women or couples were successfully conducted in all regions this past year drawing in a large proportion of farm families. Participants at these events received information on a wide variety of topics including time and stress management, women as business partners in the farm operation, farm safety, women and the law, coping with seeding and harvest and others.

Nutrition Education

This is a well established aspect of the home economics program, reaching 16,000 people in 1981-82. Child health clinics, consumer inquiries, mail bags, cor sultation with physicians and public health nurses and two new programs - postnatal classes in the Beausejour area and breastfeeding seminar in Portage la Prairie - are ways that staff reach new mothers with information on infant feeding.

Efforts were intensified this past year to improve the quality of nutrition education offered through day care facilities. In conjunction with the Manitoba Milk Producers' Marketing Board home economists, workshops for child care workers provided innovative resource materials, menu planning and sound nutrition information. Six week and twelve week follow-ups to participants of these workshops were made to reinforce the principles taught and promote the use of nutrition-oriented activities.

More follow-up is being implemented with elementary school teachers to encourage greater emphasis on nutrition in the classroom. Lesson plans that correlate nutrition with other core curriculum subjects such as mathematics, language arts, science and social studies are being introduced to teachers by the home economist.

Food preparation courses continue to be one of the most highly successful methods of transmitting family nutrition information. Wok cookery has captured the interest of over 4000 rural women since it was first introduced in the fall of 1980. Promotion of safe food preservation techniques was an important aspect of programming met primarily through consumer inquiries, local workshops and distribution of publications through grocery outlets.

Evaluation of projects and activities has been emphasized this year. As one example, on a new weight measurement course evaluation statistics were collected by staff immediately after the course and again six months later.

All Home Economists worked closely with local Agricultural Societies. A presentation, Food - A Good Buy, was presented by staff to all fall conferences of Agricultural Societies, three judging clinics were held to promote consistent high standards in judging homemaking sections at fairs and Home Economists in their own districts sponsored exhibitors' schools.

Money Management

After a slow response to courses offered in money management, communities are beginning to recognize the expertise of the home economist in assisting families with values and goals identification, home budgeting and record keeping. Many staff have participated in the Farm Management Course and in conjunction with their district agriculture representative and regional farm management specialist, have established farm business groups through which such information can be transmitted.

Participants in rural women's seminars have also been highly receptive to financial man-

agement topics. Home economists also offer one-to-one money management counselling to those experiencing financial difficulty due to overextension of credit. Total contacts in money management numbered 1,785 this year.

Clothing Construction

With a full time clothing specialist now in place, communities are benefitting by up-to-date resources and sewing techniques to save time and money. A new course, Tailoring Techniques, was particularly well-received with provincial evaluation data indicating an average saving to participants of $51 - $63 for home tailored garments. Basic sewing and sewing children's clothing were popular with new and young sewers. Clothing buymanship and extending care of purchased and home-produced garments were also covered. The total clothing program reached 3,117 people in 1981-82.

Housing

Programs in the housing area were aimed primarily at stretching the dollar, the most popular sessions including reupholstering, drapery, home repair, home crafts and cutting utility costs. The Housing News newsletter produced by the Directorate is distributed by home economists to rural tradespeople and others in the housing construction field to keep them up-to-date on current issues. Evaluation of its content and approach has been extremely positive. Information in the areas of home maintenance and improvement, energy conservation, housing alternatives and furnishings was disseminated to a total of 2,719 people.

4-H Support

4-H continues to be an area of active on-going involvement for home economists in reaching rural youth and developing community leadership. Participation in the new leadership training program, training of leaders in the use of new project materials, achievement judging, input to rallies, district council, regional and provincial conferences and summer camps are just some of the ways that the home economist supports the 4-H program.

Media

Mass media has been widely used for increasing awareness and transmitting home economics information to the public. A major evaluation of the Home Economics television program "Take Time" was undertaken by the staff from Southwest and Northwest regions. Results highly supported the time input in planning and producing the program. All home economists provide weekly columns to several local newspapers to promote their services; radio spots are also produced by Northwest and Southwest staff and by others as the opportunity arises. The Directorate produces eight two-minute radio tapes each month, which are distributed to rural stations as a further support to the delivery of programming.

In 1981-82 the home economics program in rural Manitoba reached a total of 34,385 people through group sessions and one to one contacts.

Agricultural Manpower Service

This service is administered under the Federal/Provincial Agricultural Employment Development Agreement. Some general direction comes from the committee established under that agreement. Regular contact and co-operation with regional personnel both federal and provincial is maintained. More specifically, duties related to this committee are:

1) Participation in determining supply and demand of farm labor and developing appropriate training programs.

2) Assisting in the organization of surveys, seminars, and studies relating to agricultural training needs of farmers and workers, and to assist in the initiation of training programs.

3) Co-operate with regional personnel in the monitoring of agricultural training under CMITP.

4) Co-operate with Departments of Education and Agriculture personnel in determining location and content of training programs.

5) Review, print and distribute guidelines and information on employment standards, employer/employee relations, and workers compensation as related to agriculture.

Agricultural Training

The Canada Manpower Training Program (CMTP) is now used for training programs developed and delivered exclusively for farm workers or for an applied agriculture course. Manitoba Agriculture has responsibility for content of the production aspect of this course but is expecting to take a more active role in reviewing content.

Agricultural training courses for farmers are now done entirely outside the C.M.T.P. Most courses (seminars, workshops, meetings) are

TABLE 21

NON-CMTP COURSES

COURSE NAME	NO. OF COURSES	ATTENDANCE
Welding	13	193
Welding (evening)	10	113
Electrical	8	110
Basic Mechanics	2	12
Mechanics	3	21
Grain Marketing	13	102
Animal Health	1	13
Farm Accounting	3	23
Accounting (evening)	1	12
Air Conditioning	12	140
Home Gardening	2	24
Farm Record Keeping & Analysis (evening)	1	11
Herd Health	1	13
Beef Production	2	15
Crop Production	3	37
Grain Drying & Aeration	2	86
	77	925

no more than two days in length. Departmental staff are frequently the main resource. This whole process is being reviewed.

Training Courses delivered through Assiniboine Community College but requested through Manitoba Agriculture are shown in Table 21.

Eight CMPT courses were offered during the year in basic applied agriculture, applied agriculture, dairy herd worker and general farm worker with 103 taking part. About one hundred training contracts were under CMTP.

Portage Farm Labor Project

Five courses were offered on basic agriculture, machinery maintenance, supervision, basic literacy and truck driving involved 56 trainees. There were 65 contracts for training on the job.

This project is funded entirely by federal funds and is assured funding through to February 1983. Provincial assistance is provided through one staff person whose full time work on it is cost shared through the Federal/Provincial Agricultural Employment Development Agreement. The program involved residents from both Headingley Correctional Centre and the Portage Correctional Centre For Women. Total employment at peak of harvest was around 400 employees on six major vegetable farms. This total included some of the potato harvest employees.

Offshore Workers

While 44 workers from Mexico were scheduled to come to Manitoba in 1981, only 40 arrived in the Portage area and two in the Vivian area.

Agricultural Exchange Program

Through the International Agricultural Exchange Association 120 trainees arrived in Manitoba during 1981. A four day orientation was held in April, immediately after their arrival. The trainees then worked on Manitoba farms from April to October, with the exception of a three week vacation to tour North America.

Agricultural Extension Centre

The Agricultural Extension Centre continued to provide facilities for adult education and extension training activities for rural Manitobans. Office space was also provided for Manitoba Agriculture's South-West Regional staff including the Regional Director, Regional specialists staff, the Brandon district Agricultural Representative, and Central specialists in dairy, grain handling and transportation, conservation and agri-water. A wide range of government and other organizations use the facilities for educational meetings. In the fiscal year period, 769 seminars of one day or over, not

sponsored by the Ag. Centre attracted 23,098 people - a 15 per cent increase in attendance over 1980-81. The attendance of Centre sponsored courses was down somewhat, reflecting the general slow down in Agriculture.

The Agricultural Extension Centre has residence accommodation for 92 people, a cafeteria style dining room for 200 and classrooms of various sizes which will accommodate a total of 450 people at a time. During the year a total of 7,810 people were housed in the residence and the cafeteria served 33,925 meals.

Course instructors for Ag. Centre programs come from Manitoba Agriculture, Ag. Canada and University of Manitoba staff. In addition, Brandon University, Universities in Canada and the United States, and in particular producers from Manitoba and elsewhere provide resources for the courses throughout the year.

Several new developments highlighted the year's activities. These included a one day World Food Day workshop and the coordination of provincial activities in this connection, a soil and water conservation seminar, a series of six Farm Family Seminars and a one day seminar for inventors and innovators. Other new activities included the provision of day care for women attending some meetings and the recording of some seminar programs on video tape for use at other meetings and on cable television.

Registration at 32 Centre sponsored courses was 2,307. However, because only one registration was required per family the actual attendance was considerably higher.

Publicity and Outreach

The Centre's publication "Ag Action" published monthly, proved to be the most important pre-publicity medium. Items recorded for press, radio and television were a valuable extension of the Centre's activities. Excellent cooperation was received from all media in promotion and coverage of events. Portions of several courses were video taped for added coverage, and in the case of the 1982 Beef Cattle Seminar, all resource people were taped and excerpts were widely used on broadcast television. Copies of daily proceedings were provided to all course participants. All courses were evaluated by short questionnaires completed by participants.

Agricultural Societies

Agricultural societies have played an important role in the agriculture and rural life of Manitoba for well over 100 years. In many respects present aims are similar to the original purpose. Societies provide an opportunity for the province's farmers to exchange information for the betterment of agriculture, horticulture, farm, produce and home economics.

In 1981 some 64 agricultural societies were active in Manitoba. While they carried out their traditional operation of local and regional fairs and exhibitions, they were also active in sponsoring and supporting a wide range of agricultural community events.

During the year 1981, the societies at Birtle and Russell were awarded 100 year Anniversary plaques commemorating a century of community service.

Manitoba Agriculture provides support to agricultural societies through various grants. Building grants for new buildings and ground maintenance amounted to $75,000.00 for Class "A" Societies and $42,000.00 for Class "B" Societies. An amount of $48,656.40 was allocated to 43 of the 56 eligible "C" Class Societies.

Agricultural classes and displays received prize money support amounting to $62,106.50 for Class "A" Fairs, $35,200.58 for Class "B" Fairs and $108,078.49 for Class "C" Fairs.

Many livestock producers from Manitoba show animals at the Canadian Western Agribition at Regina in November. The Manitoba Government gave a grant of $5,500 to assist with prize money.

Many societies played a significant role in the presentation phase of a new program to mark Manitoba's century farms. Manitoba Agriculture made available farm gate signs and certificates that were awarded to families that had owned and operated a farm continuously for 100 years. This ongoing program made a sizeable start with 270 qualifying families receiving awards this year.

Horse Race Meets

During the year, harness horse racing meets were held at Portage la Prairie, Wawanesa, Carman, Virden, Carberry, Dauphin, Deloraine, Crystal City, Glenboro, Killarney, Holland, and Swan River. Each Society was supported up to a maximum of $10,000 per day. This was made possible through the retention of monies collected from pari-mutuel betting, plus a supplemental grant of 2½% of the total betting pool. The total supplement grant was $24,552.60. The Pari-mutuel tax retained was $73,657.80.

District Conferences

Seven District Conferences were held during the year at Souris, Plumas, Winkler, Teulon, Birtle, Glenboro and Virden. These conferences provide the opportunity for representatives from the various societies to hear reports, discuss their problems and to consider programs for the societies in their respective communities.

Including the two day Annual Meeting held in Winnipeg in January, the Advisory Board attended three meetings during the year to review the activities of the Associations and deal with resolutions passed at District Conferences. At one of the meetings the Board received the Building Grant Applications and made recommendations to the Minister.

Newsletters

A Newsletter containing current information regarding Agricultural Societies was circulated to Home Economists, Ag. Reps, and Agricultural Societies on three occasions during the year.

Bursaries

A two hundred dollar bursary is available each year from the Agricultural Society Advisory Board for one student entering first year Human Ecology at the University of Manitoba and one student entering the first year degree in the Faculty of Agriculture. The Agricultural Society provides a recommendation for the applicant along with his application. The Evelyn Ames Bursary was awarded to Karen Gail Bukoski, Beausejour and the N.C. MacKay Bursary to Patricia Diane Heritage, Elkhorn. There were 11 applicants for the Human Ecology Bursary and ten for the Agricultural Bursary.

Austin Museum

The Manitoba Agricultural Museum is managed by an administrator and a small staff supplemented by students during the summer months. The Province of Manitoba provided S.T.E.P. students to act as tour guides and provide assistance with resoration work.

The museum attracts visitors from all parts of the world through the summer months. The special four day Threshermen's Reunion held in late July each year is the culmination of the efforts of many local residents interested in maintaining and preserving some of the early methods of harvesting.

Revenues from the Reunion and the casual visitors assist in maintaining the museum, but substantial grants are necessary in order to maintain and develop the museum. Grants from the Manitoba Department of Agriculture in 1981-82 amounted to $108,000.00 to assist with operation and maintenance.

Keystone Centre

Built in 1973, the Keystone Agricultural and Recreational Centre in Brandon serves the agricultural, recreational and entertainment needs of Brandon and surrounding districts. Each year the Provincial Exhibition uses the facilities to sponsor the Royal Winter Fair, Provincial Exhibition (summer fair) and Ag-Ex (fall fair). Many organizations use the facility for recreation and entertainment such as hockey, figure skating, bingo, socials and musical performances. Also Livestock Breed Associations and individual producers use the Keystone Centre for shows and sales throughout the year.

Under the Keystone Centre Agreement the Province of Manitoba and the City of Brandon share equally in any operating deficit. In 1981 the operating deficit was $54,909.00 and our grant towards the deficit was $28,454.50.

Women's Institute

The Manitoba Women's Institute completed a very successful year. In 198182 there were 109 Institutes with a total of 1846 members. The Institutes are organized into six districts. During the year the Institutes concentrated on the following major program areas; 4-H Clubs, community cleanup projects, studies and projects on education and cultural affairs, citizenship, home economics and health, agriculture, Canadian industries and safety projects. The Provincial Board works very closely with the Home Economics Directorate, and in the field with district Home Economists. Manitoba Agriculture's grant to the Women's Institute was $28,000.

Manitoba Farm Vacations Association

This Association provides two unique and important opportunities to support Manitoba Agriculture. First, Farm Vacations host families provide the opportunity for a farm vacation, an opportunity for young and old, generally from a non-farm environment, to actually live on a farm and learn first hand about farm life and food production. Secondly, farm families have an opportunity to tell the story of food production to non-farm people.

During 1981, there were 280 one day school tours to Farm Vacation Farms with approximately 20,000 children participating. For

many of these children this was their first farm visit. Fifteen senior citizen tours were carried out during the year.

A Provincial Grant of $17,500 was made to support the Farm Vacation Program.

The Community Resource Centre

The centre is located at Brandon University and is operated as a research and advisory service to help in the building and rebuilding of rural communities. It assists individuals and groups in studying problems and opportunities in their areas. Local participation is encouraged in all planning and development phases. In 1981-82 the Centre received a grant of $25,000 from the province.

Manitoba Safety Council

A grant of $15,000 was made to the Manitoba Safety Council by the province, to assist with the development and delivery of farm safety training courses in rural Manitoba. Pilot courses in farm safety were expanded during the year.